AUTHOR INDEX

VOLUME 58

Aamand, Jens, 557
Aarsman, Colinda J. M., 3868
Abebe, H. M., 3360
Aberdeen, Virginia, 990
Ablett, Richard F., 3177
Abouzied, Mohamed M., 169
Abril, María-Angeles, 415
Abu-Ghorrah, Mammoud, 1780
Accolas, Jean-Pierre, 1011, 3429
Adams, Mark, 706
Adams, R. H., 647
Adams, William J., 1215
Adamsen, A. P. S., 2758
Agarwal, Sandeep K., 3701
Agosin, Eduardo, 1266
Ahmad, D., 485
Ahonen, Lasse, 600
Ahring, Birgitte K., 365, 862, 3677
Aiba, Shuichi, 2081
Akhtar, M., 2509
Akhurst, R. J., 3032
Akin, D. E., 3762
Aksay, Ilhan A., 3130
Alabouvette, Claude, 2978
Alber, Susan A., 3337
Albiach, Maria R., 2683
Albrechtsen, Hans-Jørgen, 3020
Alexander, Martin, 38
Al-Harthi, Lena, 2861
Ali, Esahak, 1970
Allard, Ann-Sofie, 961
Alleman, Bruce C., 4048
Allen, Michael F., 2066
Altendorf, Karlheinz, 2053
Altmann, K., 3694
Altwegg, Martin, 1940
Alugupalli, Srinivas, 3538
Alvarez-Cohen, L., 1886
Amann, R. I., 614
Amann, Rudolf I., 2158, 3007
Amanuma, Kimio, 4072
Amy, P. S., 3367
Andersen, Mark R., 4080
Anderson, C. Ronald, 335
Andrews, J. H., 3374
Anguish, T., 3323
Anguita, Juan, 1031
Angulo, A. F., 2606
Annys, Katrien, 2536
Ansari, Shamim A., 3984
Antoun, Hani, 2846, 2960
Aon, Miguel A., 3150
Aono, Rikizo, 520
Arana, Inés, 3903
Araujo, Rosa, 2670
Archibald, Frederick, 1496
Archibald, Frederick S., 3101, 3110
Arechavaleta, M., 857
Ares-Mazás, M. E., 3514
Arihara, Keizo, 3053
Armentrout, Richard W., 877
Arnold, Patrick, 1541
Arnold, Robert G., 2231
Arp, Daniel J., 3038
Arrowsmith, Robert J., 900
Asai, Tatsumi, 4072
Asami, Teruo, 2832
Ascencio, F., 42
Asghari, Abdolkarim, 1159
Ashdown, Leslie R., 4011
Assaf-Anid, Nada, 1057
Atkinson, Tony, 2345
Audurier, Andre, 3183
August, Paul R., 335
Autio, K., 2153
Auwerda, Hajo J. A., 111
Avery, Simon V., 3883
Ayo, Begoña, 3850
Azad, Hamid R., 274
Azcona-Olivera, Juan I., 169
Azuma, Syoji, 2081

Bååth, E., 4026
Baccus-Taylor, Gail, 3053
Bacon, C. W., 857
Bae, Ji-Hyun, 471
Bahl, Hubert, 1233
Bailly, Jean-Luc, 3517
Bak, Friedhelm, 1601
Bakker, Peter A. H. M., 2978
Baldani, J. Ivo, 2308
Baldi, Franco, 1853
Bali, Anil, 1711
Bandín, I., 3316
Banina, A., 4086
Bannerman, E., 1857, 2011, 4055
Barany, Francis, 3443
Barash, Isaac, 3932
Barbaree, J. M., 2001
Barbour, Andrew, 3777
Barcina, Isabel, 392, 998, 3850, 3903
Barefoot, S. F., 215
Barker, John, 2420
Barrio, Eladio, 2948
Barugahare, Martin, 2565
Basson, Philip, 2341
Batenburg, A. Max, 3787
Bater, Bilig, 3053
Bateson, Mary M., 3964
Batt, Carl A., 3443
Batzli, Janet McCray, 2137
Bauer, Wolfgang D., 1153
Baveye, Philippe, 1690, 2523
Bayona, J. M., 2910
Beacham, Ifor R., 1776
Beauchemin, Diane, 405
Bécard, G., 821
Beck, Mary Jim, 1382
Becker, Elisa, 2971
Beharka, A. A., 2410
Belcher, L. A., 1719
Bellemann, Peter, 3522
Beller, Harry R., 786, 3192
Bendinger, Bernd, 2053
Bennett, G. A., 233
Bennett, George N., 2704
Benson, David R., 3448
Beppu, Teruhiko, 2633
Bereswill, Stefan, 3522
Berge, Odile, 1894
Bergman, Birgitta, 3122
Bergquist, P. L., 3864
Berkers, Peter, 1913
Berman, Mitchell H., 925
Bernet, Marie-Françoise, 2034
Bernier-Cardou, Michèle, 545
Berry, Colin, 905, 1794
Berry, Duane F., 2667
Berthe-Corti, Luise, 3072
Berthelin, J., 1175
Bettermann, A., 1760
Beuchat, Larry R., 2093
Beveridge, T. J., 1904, 3837
Beveridge, Terry J., 405, 2894
Bhadra, R. K., 2485
Bhadra, Rupak K., 3567
Bhagwat, Arvind A., 1490
Bhattacharya, Dipanwita, 1970
Bhunia, Arun K., 1924, 2315
Biederbeck, V. O., 3941
Bielicki, John K., 3614
Bille, J., 1857, 2011, 4055
Binnerup, Svend Jørgen, 303, 2375
Birkbeck, Harry, 3777
Bitter-Suermann, D., 3187
Bitton, Gabriel, 1159
Bjourson, A. J., 2296
Blake, Cheryl K., 4051
Blake, Robert C., II, 431
Blakemore, Richard P., 1102, 3211
Blanco, Gonzalo, 1711
Blanco, M., 434
Blasco, R., 690
Blenkinsopp, Sandra A., 3770
Blick, Mark, 2571
Blom, A., 331
Blum, Jodi Switzer, 426
Blumentals, Ilse I., 1134
Blythe, Linda L., 2559, 2730
Bodsworth, Nicola J., 2345
Boemare, N. E., 3032
Bogardt, Anne H., 2579
Bohlool, B. Ben, 1095
Bonire, Josiah J., 758
Bookland, R., 1760
Bootland, Linda M., 6
Boquien, Clair-Yves, 285
Borgonovi, G. E., 2691
Börjesson, Thomas, 2599
Borneman, W. Scott, 3762
Borthakur, Dulal, 1050
Bos, J. Wil, 3787
Bos, P., 2227
Bosch, Ursula, 3233
Bosco, Marco, 1569
Bossé, Marc, 642
Bothast, R. J., 233
Bott, Thomas L., 3614
Bottalico, Clementina, 769
Bouet, C., 2479
Bougnol, F., 3834
Boulygina, E., 1886
Bourgeois, C. M., 4064
Bowen, Benjamin A., 3292
Bowie, William R., 1530
Boyd, Stephen A., 1110, 1142, 3088, 3249
Boyer-Giglio, M.-H., 3032
Boyle, Alfred W., 4051
Boyle, C. David, 3217
Brand, J. M., 3407
Brandt, Sebastian, 1705
Breddam, Klaus, 2144
Brehelin, M., 3032
Brehm, John K., 2345
Breidt, Fred, 3845
Breiman, R. F., 2001
Brenner, Sydney, 905, 1794
Brenner, V., 647
Breschel, Theresa S., 21
Bresser, Joel, 2571
Brettar, Ingrid, 2201
Briones, V., 434
Brock, Barry J., 221
Brockman, Fred J., 2386
Broda, Paul, 3433
Brodkorb, Toby S., 3117
Brooks, Myron H., 1746
Brophy, G., 3047
Brousseau, Roland, 642
Brown, Michael R. W., 2420
Bruce, Andrew W., 1549
Bruce, K. D., 3413
Bruhn, Christel, 2928
Bruinenberg, Paul G., 78
Brune, Andreas, 1861
Bruno, Maria E. C., 2255
Bruns, Thomas D., 291
Bruschi, Carlo V., 3466
Brusseau, G. A., 1886
Bubert, Andreas, 2625
Buchholtz, Katrin, 1869
Buchholz, Lorie A., 2302
Bücker, Horst, 2355
Budacz, A. P., 747
Budu-Amoako, Ebo, 3177
Budwill, Karen, 1398
Buff, Klaus, 3173
Bühler, H.-P., 1564
Buitenhuis, E. T., 2654
Bunning, V. Kelly, 2096
Burchhardt, Gerhard, 1128
Burge, Harriet A., 181
Burges, H. Denis, 1344
Burgess, J. Grant, 686
Burkhardt, William, III, 826, 1371
Busch, Susan V., 14
Busscher, H. J., 1326
Busscher, Henk J., 1549
Butt, Joe, 1344
Button, D. K., 243
Byrd, Jeffrey J., 2266

Caccavo, Frank, Jr., 3211
Calabrese, V. G. M., 3941
Calderon, Isabel L., 1677
Callegari, Maria Luisa, 1011
Campbell, A. T., 3488, 3494
Canard, Bruno, 1075
Cancilla, Michael R., 1772
Candrian, U., 1564
Caniaux, I., 1857
Cao, Wei-Wen, 2827
Capers, Gesa M., 1506
Capone, Douglas G., 3122
Carlson, Liisa, 1046
Carlson, Russell W., 607
Carmichael, W. W., 2495
Carpenter, Edward J., 3122
Cary, Jeff, 3527
Casale, Ellen S., 3271
Casellas, M., 2910
Casey, Judy, 3283
Casida, L. E., Jr., 32

Cassens, Robert G., 3053
Castillo, F., 690
Catimel, B., 1857
Cauvin, Beatrice, 3053
Cavanaugh, Colleen M., 3799
Cenatiempo, Yves, 3784
Cerniglia, Carl E., 27, 937, 1351, 1360, 3654
Cerning, J., 4086
Chakrabarti, S., 2485
Chakraborty, Trinad, 765
Chamberland, H., 1727
Chambon, Martine, 3517
Champagne, Claude P., 545, 1429
Chan, C. W., 3767
Chand, T., 3374
Chang, Cheng, 507
Chang, Chun Chin, 3437
Chang, Jinq Chyi, 3437
Chang, Ming Chung, 3437
Chang, Perng-Kuang, 3527
Chanter, N., 932
Chapot-Chartier, Marie-Pierre, 285
Chaslus-Dancla, Elisabeth, 3183
Chaudhry, G. Rasul, 3984
Chaudhuri, Keya, 3567
Chaufaux, J., 840
Chen, D., 3694
Chen, Feng, 3721
Chen, J., 3196
Chen, Jiann-Shin, 3297
Chen, Jin, 1816
Chen, Junping, 3928
Chen, Lu-Hung, 3419
Chen, Meng-Jiu, 3225
Chen, S.-Y., 655
Chen, Yona, 119
Cheng, Jie-Ping, 2531
Cheng, K.-J., 4042
Chiancone, Emilia, 2886
Childers, Susan E., 3949
Cho, Kyeoung-Suk, 1183
Choate, Donna, 431
Choi, Joon W., 593
Choquet, Christian G., 2894
Chow, Jo May, 1115
Christensen, Bjørn, 1244
Christensen, Douglas P., 3312
Christensen, Thomas H., 3020
Christiaens, H., 3792
Christiansen, Nina, 3677
Christoffersen, Kirsten, 252
Chrzanowski, Thomas H., 3715
Chu, Fun Sun, 455
Cisterna, Ramón, 392
Clark, D. L., 3095
Clark, Douglas S., 1789
Clark, Thomas, 1853
Clarke, Sue G., 4011
Cliver, Dean O., 2016, 2368
Cloutier, Jean, 2846
Cocconcelli, P., 4086
Cockle, Stephen A., 208
Coconnier, Marie-Hélène, 2034
Cohen, Yehuda, 70
Colby, Gary D., 3297
Cole, James R., 409
Collier, Phillip J., 2420
Collins, Scott, 1699
Collins, Y. E., 1592
Colotti, Gianni, 2886
Colwell, Rita R., 2266, 2965
Conner, Anthony H., 1266
Conway, Patricia L., 551
Conway, Tyrrell, 3826
Conway de Macario, Everly, 862, 3677
Cook, R. James, 2616
Cooksey, Donald A., 274
Coolbear, Tim, 3263
Cooper, J. E., 2296
Copley, Shelley D., 1385
Corcoran, Connie, 399
Cornejo, Isidro, 1067
Cornelis, Guy R., 1024
Corstjens, P. L. A. M., 450
Costa, Gumersindo Feijoo, 2219
Costerton, J. William, 3770
Cotta, Michael A., 48, 2764
Coucheron, Dag Hugo, 1980
Coveney, Michael F., 150
Covert, Sarah F., 2168
Cowan, M. M., 1326
Coyne, Vernon E., 2861
Craig, A. Morrie, 2559, 2730
Crawford, Don L., 1070, 1683, 3199, 3598, 3605
Crawford, Ronald G., 2096
Crawford, Ronald L., 727, 1683, 3199, 3598, 3605
Cregan, Perry B., 720, 1878
Crichlow, Michael, 713
Crooks, Gwen P., 1385
Croux, Christian, 1075
Crowley, J., 3873
Cruden, D. L., 3407
Cruden, Diana L., 2723
Culbertson, Charles W., 2983
Cullen, Dan, 2168
Cullen, Daniel, 1379
Cunningham, James E., 1451
Cuperus, Pieter L., 1549
Curtin, D., 3047
Curtis, Thomas P., 1335
Cyr, W. H., 747
Cyr, W. Howard, 3180
Czajka, John, 3443

Dabrock, Birgit, 1233
Dai, Shu-Mei, 507
Dal Degan, Florence, 2144
Dalsgaard, Tage, 1601
Daly, Charles, 3283
Dane, Fenny, 267
Daniel, Geoffrey, 3667
Daniels, Michael J., 3751, 3759
Dankert, J., 1500
Das, Jyotirmoy, 3567
Daub, Margaret E., 444
David, Chantal, 1780
Davidson, Barrie E., 1670, 1772
Dawson, K. A., 1617
Dawson, Michael T., 1039
Dawson, Rodger, 3122
Daya-Mishne, Neomi, 174, 677
Dazzo, Frank B., 1816
Dean-Ross, Deborah, 3000
De Baerdemaeker, Josse, 2901
de Bont, J. A. M., 2654
de Bont, Jan A. M., 1220, 2219
de Bruijn, Frans J., 2180
de Bruin, Wil P., 1996
de Bruyn, J. C., 2227
de Chazal, Nola M., 3561
de Donato, P., 1175
Dee, Sanford W., 3136
de F. S. Barbosa, Maria, 1382
Degn, Hans, 2552
Degnan, Alan J., 3053
Deguchi, Yoshiaki, 4072
Deibel, Don, 773
de Jong, Ed, 2219
De Kogel, Willem Jan, 2978
de la Cruz, Angela R., 1986
del Carmen de la Rosa, María, 1067
Delgado, Asunción, 415
Delgado, C., 434
Delong, George T., 2022
Delor, Isabelle, 1024
Delorme, Christine, 4045
de los Reyes-Gavilán, Clara G., 3429
Deming, Jody W., 1794
Demizu, Kazuhiro, 703
Denecke, B., 1874
Deng, Ming Yi, 2016, 2368
Dennis, Douglas, 1089
de Raay, G., 1975
De Ridder, Herman, 2099
Desjardins, A. E., 2799
Desjardins, Anne E., 984
Desmarchelier, P. M., 418
Desmazeaud, M. J., 279
Dessaux, Yves, 1780
Devereux, R., 614
Devi, K. Uma, 1918
De Villiers, J. C., 3203
de Vos, Willem M., 78
de Vrind, J. P. M., 450
de Vrind-de Jong, E. W., 450
de Waard, Pieter, 536
Dewdney, Nolan J., 1699
Dhar, Tarun K., 1970
Dharmatilake, Amitha J., 1153
Dhawale, Shree S., 3000
Dhawale, Shrikrishna W., 3000
Dickson, J. S., 3482
Diefenbach, Ruth, 1847
Dingman, D. W., 740
DiStefano, Thomas D., 3622
Dobozi, Mária Szakács, 3466
Dodd, Helen M., 3683
Doering-Saad, Christiane, 3932
Domann, Eugen, 765
Doménech, Ana, 4083
Dominguez, L., 434
Donegan, Katherine, 1207
Dong, Fu-Min, 2531
Donham, Kelley J., 2543
Donnelly, Catherine W., 14
Donovan, William P., 3921
Doran, James L., 4038
Dostal, Larry, 2116
Douds, D. D., 821
Doyle, M. P., 3991
Doyle, Michael P., 664, 1764, 2513
Doyle, R., 3837
Doyle, Robyn, 706
Dreyfus, Bernard L., 2415
Drocourt, Jean-Louis, 1524
Droffner, Mary L., 1784
Drouet, X., 2479
Duffner, F., 3047
Duncan, Paul A., 4032
Dupuy, Nicolas C., 2415
Durairaj, Micheal, 4038
Duran-Oreiro, D., 3514
Duwat, Patrick, 2674
Duyts, Hendrik, 3303
Dwyer, Daryl F., 1249, 1259, 3380

Eardly, B. D., 2308
Eardly, Bertrand D., 1809
Edwards, E. A., 794
Edwards, Elizabeth A., 2663
Edwards, R. Mark, 2592
Eerola, E., 3660
Egea, Luis, 998, 3850, 3903
Eggink, Gerrit, 536
Egmond, Maarten R., 3787
Eguchi, Hidetaka, 93
Ehinmidu, Joseph O., 758
Ehrlich, S. Dusko, 2674, 4045
Eichenlaub, R., 1874
Eichenlaub, Rudolf, 4068
Eldridge, Russ, 1583
Ellis, Deborah J., 1344
Elmore, Michael J., 2345
el Naggar, Saad, 2355
El-Sharkawy, Saleh H., 2116
Emerson, David, 4001
Enfield, Carl G., 2211
Engelke, G., 3730
Enger, Øivind, 1624
Ensign, Scott A., 3038
Entian, K.-D., 132, 3730
Epstein, Slava S., 2426
Erdmann, Dirk, 2744
Eschweiler, Ute, 2355
Evans, Frederick E., 3654
Evans, Patrick J., 496
Evans, W. R., 2495
Eveleigh, Douglas E., 3455
Ezaki, Masami, 3879
Ezaki, Takayuki, 1394

Faith, Nancy G., 3053
Falcão, Deise P., 412
Fallon, Robert D., 3163
Farrah, Samuel R., 1159, 3984
Farrell, Ian, 2420
Fassel, Theresa A., 2302
Fayard, Blandine, 1011
Federici, Brian A., 507
Fedorak, Phillip M., 1398, 3542
Fee, James A., 421
Feijen, J., 1500
Fein, Jared E., 1382
Feng, Guo Hong, 455
Fenton, A. M., 3873
Fernandez, Maria P., 1569
Fernandez-Astorga, Aurora, 392
Fernandez-Garayzabal, J. F., 434
Fett, W. F., 2123

Fevre, Michel, 578
Fiechter, Armin, 1447
Fiedler, Jörg, 4068
Fieland, Valerie, 1207
Field, Jim A., 2219
Fields, B. S., 2001
Firestone, Mary K., 1284
Firme, Paula, 2271
Fitzgerald, Gerald F., 3283
Fitzsimons, A., 3047
Fleming, Henry P., 1477, 1484, 3845
Fletcher, Madilyn, 2954
Flickinger, Michael C., 335, 2806
Fliege, Ronda, 3826
Fluit, Ad C., 3868
Focht, D. D., 647
Focht, Dennis D., 194, 2501
Foegeding, P. M., 884
Foght, Julia, 3542
Fogleman, James C., 3136
Foltz, William E., 717
Ford, J. Patrick, 2513
Forsberg, C., 3857
Forsberg, Cecil W., 157
Fortnagel, Peter, 1005, 2744
Foster, Michael A., 2005
Fotheringham, Ian, 2592
Fouz, B., 3316
Fowles, Nanci, 1207
Fox, George E., 2571
Francke, Wittko, 1005, 2744
Frazer, Anne Cornish, 925
Fredrickson, James K., 2386
Free, Miranda L., 1776
Freeman, Christopher, 2030
Freeman, James P., 3654
Frenken, Leon G. J., 3787
Freyssinet, Georges, 578
Friese, Carl F., 2066
Friesem, Dana, 1121
Frijters, Carla T. M. J., 346
Frings, Joachim, 2164
Fritze, H., 4026
Frostegård, Å., 4026
Fründ, Claudia, 70
Frutos, Roger, 507
Fry, John C., 1292
Frydenlund, Kirsten, 1980
Fu, Peter P., 937
Fuerst, John A., 3914
Fujikawa, Hiroshi, 920
Fujiki, Kiichi, 2751
Fujiwara, Shinsuke, 4016
Fukagawa, Tatsuo, 3410
Fukuda, Hideo, 703
Fukushima, Hiroshi, 2688
Fulayfil, Nada, 2341
Fulthorpe, Roberta R., 314

Gai, Wen Zhi, 1832
Galama, J. M. D., 2606
Gallaher, Thomas, 1089
Ganio, Lisa, 1207
Gannon, Frank, 1039
Gannon, Victor P. J., 3809
Ganter, Philip F., 990
García-Alvarado, José S., 326, 1411
García-Armesto, M. R., 2245
García-López, M. L., 2245
Gardan, Louis, 1780
Gartemann, Karl-Heinz, 4068
Gaskell, Jill, 1379
Gasson, Michael J., 3683
Gattie, David K., 1
Gaudy, Christophe, 1429
Gawron-Burke, M. Cynthia, 3921
Geider, Klaus, 3522
Geiger, Dorothy, 267
Geiger, J. P., 1727
Gendron-Fitzpatrick, A., 3991
Genthner, Fred J., 2840
George, Maria Luz C., 1050
Georgiou, George, 3701
Gerard, H. C., 2123
Gerba, Charles P., 636, 724
Gerritse, Jan, 1466
Gerritsen, L. J. M., 1975
Gersonde, Rolf, 3225
Ghauri, M. Afzal, 1423
Ghiorse, William C., 4001
Gibbs, M. D., 3864
Gibson, D. T., 3407
Gibson, David T., 1351, 1360, 2643, 2723
Gibson, Jane, 696
Gibson, Katharine J., 696
Gibson, Susan A., 1392
Giebel, D., 3187
Giesendorf, B. A. J., 3804
Gijzen, Huub J., 2565
Gilbert, H. G., 2517
Gilbert, Peter, 2420
Gilbertson, Robert L., 4048
Gill, Sarjeet S., 507
Gireesh, T., 1670
Giver, Lori J., 3417
Gjølme, Nina, 1321
Glass, K. A., 3991
Glass, Kathleen A., 2513, 3053
Glaus, Martin A., 1945
Glennon, Jeremy D., 353
Glickmann, Eric, 1780
Glover, L. Anne, 2444
Godon, Jean-Jacques, 4045
Goebel, Werner, 2625
Gold, Michael H., 221, 2397
Goldschmidt, Bernard, 496
Golsteyn Thomas, Elizabeth J., 3809
Goma, Gérard, 1075
Gomes, Tânia A. T., 412
Gómez-Lucía, Esperanza, 4083
Gonzalez, Carlos F., 2360
González, Juan M., 998
Goodnough, Michael C., 3426
Gossett, James M., 3622
Goszczynski, Stefan, 3598, 3605
Goto, Shingo, 734
Gottschal, Jan C., 1466
Gottschalk, Gerhard, 1233, 3896
Gould, W. D., 4042
Governal, Robert A., 724
Goyache, Joaquin, 4083
Goyal, Anil K., 3455
Grabow, W. O. K., 3203
Graff, Gordon L., 3130
Graham, David W., 2231
Graves, William R., 2137
Grbić-Galić, Dunja, 786, 794, 2663, 3192
Green, Benita, 1832
Greer, Linda E., 1027, 1459
Griffith, Gail D., 409
Grifoll, M., 2910
Grimes, D. Jay, 3257
Grinstead, D. A., 215
Gripon, Jean-Claude, 285
Grolle, Katja C. F., 346
Grotenhuis, J. T. C., 1054
Groves, T. O., 2089
Grulke, Eric A., 1740
Grund, E., 1874
Grund, Erwin, 4068
Grupe, Helga, 3896
Gruss, Alexandra, 2674
Gu, Ji-Dong, 2667
Gudmundsdottir, A., 1417
Guerin, William F., 1102, 1142
Guffanti, Arthur A., 891
Gunsalus, Robert P., 2438
Gustafson, Corinne E., 3816
Guthrie, Kelly, 737
Gutowski, Z., 3730

Haack, Sheridan K., 1816
Haandrikman, Alfred J., 3142
Hadar, Yitzhak, 119, 1121
Haddock, John D., 2643
Hagihara, Hiroshi, 1577
Hagström, Åke, 3744
Hahn-Hägerdal, Bärbel, 1661, 2552
Haigler, Billy E., 2237
Haldeman, D. L., 3367
Hall, D. H., 3367
Hall, Nancy H., 1940
Hallas, Laurence E., 1215
Hallberg, Kevin B., 1046
Hammel, Kenneth E., 1832
Hammelmann, M., 3730
Hammes, Walter P., 832
Hammock, Bruce D., 1583
Hammond, L. S., 3694
Hanna, P. J., 3694
Hänninen, O., 3660
Hansen, Geir Høvik, 461
Hanson, R. S., 1886
Hanson, Richard S., 335, 953
Hao, Zhang, 3683
Harder, W., 331
Hardy, R. W. F., 3830
Harkes, G., 1500
Harrington, F., 1364
Harris, Linda J., 1477, 1484
Harris, R. F., 3374
Harsono, Kartika D., 709, 3053
Hart, Mark E., 2815
Hartley, Roy D., 3762
Hartman, Paul A., 3027
Hartmans, Sybe, 1220, 2854
Hasegawa, Kazunari, 525
Hasegawa, Toru, 371
Hashimoto, H., 3078
Hassani, Morad, 2704
Hatta, Takashi, 1276
Haugan, Kåre, 1980
Hayashi, Kazuhide, 4072
Hazlewood, G. P., 2517
He, Ping, 3857
He, Zhi-Qing, 2531
Héchard, Yann, 3784
Heery, David M., 1039
Heflich, Robert H., 937
Heijman, Cornelis G., 1945
Heimbuch, Brian K., 3964
Heinze, Thomas M., 27
Heipieper, Hermann-Josef, 1847
Heitkamp, Michael A., 1215
Heitzer, Armin, 1839
Helleur, Robert, 773
Hemmingsen, Barbara B., 2579
Hendriksen, Hanne V., 365, 3677
Henkens, M. H. C., 3804
Herbert, Andrew B., 208
Herman, Lieve, 2099
Hernández, Javier, 4083
Hespell, Robert B., 1082
Heulin, Thierry, 1894
Heuvelman, Kees, 765
Hewitt, Patricia, 706
Hicks, Randall E., 2158
Higson, F. K., 647
Higson, Frank K., 194, 2501
Hill, Katja E., 1292
Hill, Russell T., 2965
Hill, Susan, 1711
Hillier, Alan J., 1670, 1772
Hiltunen, Maria, 1043
Hindley, John, 905, 1794
Hiney, Maura, 1039
Hiorns, W. D., 3413
Hirahara, Toshikatsu, 2633
Hirai, Mitsuyo, 1183
Hirano, Susan S., 1440
Hirayama, Kouichi, 1768
Hirshfield, Irvin N., 2704
Hobman, J. L., 3413
Hochstein, Lawrence, 426
Hodson, Robert E., 3630
Höfelein, C., 1564
Hoff, Kjell Arne, 1624
Höfle, Manfred G., 2201, 3387
Höfte, Herman, 2536
Hogge, Lawrence, 3928
Holben, W. E., 3941
Holcomb, Larry A., 1940
Holliger, Christof, 1636
Holm, Peter E., 3020
Holmström, Carola, 2111
Holo, H., 1417
Hong, Yaping, 1699
Hon-Nami, Koyu, 734
Hood, Mark T., 1201
Hooper, Alan B., 2321
Höpner, Thomas, 3072
Horgen, Paul A., 3553
Horikoshi, Koki, 520
Horinouchi, Sueharu, 2633
Horn, Nikki, 3683
Horneck, Gerda, 2355
Hottinger, Herbert, 3165
Hoveland, C. S., 857
Howard, Patricia J., 709
Hsu, Edward J., 1797
Huang, C.-M., 647
Hubbell, David H., 1816
Hübner, I., 3187
Huerta, Tomás, 2948
Huf, F. A., 3804
Hugenholtz, Philip, 3914

Huijberts, Gern N. M., 536
Huisman, Gjalt W., 536
Hulsch, Reiner, 3072
Husson, Marie-Odile, 1524
Hutcheson, Steven W., 2468
Hutchins, Stephen R., 3395
Hutkins, Robert W., 3312
Huttermann, Aloys, 3225
Hwa, Vivian, 869
Hyman, Michael R., 3038
Hynes, M. F., 2308
Hynning, Per-Åke, 961

Iandolo, John J., 2815
Idziak, Edmund S., 2783
Ikeda, Masato, 781
Ikedo, Masanari, 1394
Imamura, Norifumi, 562
Imanaka, Hiroshi, 3879
Imanaka, Tadayuki, 3779, 4016
Inagaki, Kenji, 1768
Inamori, Yoshihiko, 371
Ingledew, W. M., 713
Ingram, L. O., 1128, 1382, 2103
Iriberri, Juan, 392, 998, 3850, 3903
Isaac-Renton, Judith L., 1530
Ishiguro, K., 1801
Ishihara, Kazuyuki, 3399
Ishihara, Michiyo, 3399
Ishino, Yoshizumi, 3165
Istok, Jonathan D., 2280
Ito-Yoshida, Chieko, 3970
Iwami, Morita, 3879
Izaki, Kazuo, 2490

Jack, Thomas R., 3542
Jackson, Luke A., 3751, 3759
Jackson, Mark A., 2260
Jacobsen, Carsten S., 2458
Jacobsen, Hans Svankjaer, 2552
Jacobsen, Jens Peter, 2552
Jacobs-Reitsma, Wilma, 1913
Jacquet, C., 1857
Jannasch, H. W., 3799
Jannasch, Holger W., 3472
Jansen, Wim, 1913
Jansens, Stefan, 2536
Janssen, Dick B., 976
Jareonkitmongkol, Saeree, 2196
Jarešová, Marcela, 3538
Jarrett, Paul, 1344
Jarstfer, A. G., 229
Jayat, Chantal, 3784
Jeffries, Thomas W., 2402
Jehanno, D., 4064
Jenns, Anne E., 444
Jensen, Ellen C., 2505
Jensen, Kim, 303
Jensen, Mikael Hjorth, 303
Jensen, Roy A., 2792
Jensen, Susan E., 4038
Jermini, M., 1564
Jimenez-Zurdo, Jose I., 1816
Jin, S. M., 429
Jin, Tianru, 3553
Jofre, Juan, 2670
Johansen, Berit, 1980
Johnson, C. H., 2776
Johnson, D. Barrie, 1423
Johnson, Eric A., 624, 2075, 2334, 3426
Johnson, Kenneth E., 731
Johnson, Loreena A., 1776
Johnson, Michael G., 1924, 2315, 2827
Johnson, Monty C., 3355
Johnson, Timothy B., 3921
Johnstone, Donald L., 2386
Jones, L. E., 2123
Jones, Stephen H., 3257
Jørgensen, Bo Barker, 1164
Jørgensen, Niels O. G., 3638, 3647
Jørgensen, Trond, 1980
Josephson, Karen L., 1271
Joshi, Dinesh K., 221
Judd, Adam K., 1878
Julien, Raymond, 3784
Jurkevitch, Edouard, 119
Jurtshuk, Peter, Jr., 2571
Jurtshuk, Rebecca J., 2571
Jüttner, F., 243

Kaake, Russell H., 1683
Kafarski, Pawel, 2993
Kaiser, Alan, 2255
Kakihara, Hirofumi, 4016
Kakuda, Tetsuro, 1276
Kaletta, C., 132
Kamagata, Yoichi, 106
Kamio, Yoshiyuki, 2490
Kämpfer, Peter, 3932
Kaneko, Jun, 2490
Kanemoto, Mitsuhide, 4016
Kaniga, Koné, 1024
Kape, Rüdiger, 1705
Kaplan, Louis A., 3614
Kasbekar, Durgadas P., 2071
Kataoka, Naoaki, 2751
Kato, Junichi, 2250
Katsumata, Ryoichi, 781
Kawahisa, Michitaka, 1577
Kawakami, H., 3078
Kawashima, Hiroshi, 2196
Kazemier, Bert, 976
Keevil, C. W., 2326
Keil, Richard G., 1374
Keister, Donald L., 1490
Kelley, Jacqueline I., 1408
Kelly, Alison F., 3959
Kelly, Robert M., 1134
Kemper, M., 3837
Kennedy, Christina, 1711
Kennedy, Kevin J., 1367, 2131
Kerem, Zohar, 1121
Kernéis, Sophie, 2034
Kessel, Martin, 2965
Ketchum, Paul A., 3586
Keweloh, Heribert, 1847
Key, R., 614
Khan, Ashraf A., 1388
Khanna, M., 1930
Khoury, Antoine E., 3770
Khoury, Antoine H., 1549
Khush, Ranjiv S., 2971
Kiekhaefer, Margaret S., 2543
Kiiyukia, Ciira, 3078
Kijne, Jan W., 3709
Killham, Kenneth, 2444
Kim, Jong Y., 3809
Kim, Mi Sun, 1764
Kimura, Eiji, 1577
King, G. M., 2758
King, Robin K., 3809
Kingsley, Mark T., 1095
Kinkle, B. K., 3360
Kinniment, S. L., 1629
Kirchman, David L., 1374
Kirk, T. Kent, 1266
Kishishita, Masamichi, 2449
Kitamikado, Manabu, 2474
Kiyohara, Hohzoh, 1276
Kjelleberg, Staffan, 55, 551, 2111
Klaenhammer, T. R., 187, 279, 884
Klaenhammer, Todd R., 699, 1477, 1484, 1786, 2034
Klapes, N. Arlene, 1786
Klatte, Stefan, 2053
Klein, C., 132
Klein, Michel H., 208
Kleman-Leyer, Karen, 1266
Klingler, J. M., 2089
Kloepper, Joseph W., 267
Klotz, Martin G., 2468
Kluepfel, Dieter, 815
Knackmuss, Hans-Joachim, 2928, 2933
Knapp, R. B., 2737
Knauf, Hermann J., 832
Knudsen, Gunvor, 1980
Knudtson, Linda M., 3027
Kobayashi, Hisao, 3970
Kobayashi, Masanori, 1061
Kodama, Tohru, 911
Kodde, Jan, 3142
Köhler, Stephan, 2625
Kohno, Shuhei, 703
Kojic, M., 4086
Kok, Jan, 572, 1952, 3142
Komori, Tadaaki, 3879
Konings, Wil N., 285
Kopczynski, Eric D., 3964
Korich, Dick G., 2231
Kosslak, Renee M., 3292
Koster, Margot, 630
Kotimaa, Marjut, 3774
Kotterman, Michiel J. J., 1996
Kramer, Jonathan G., 201
Kritzman, Giora, 3932
Krivi, Gwen G., 1511
Kroll, Rohan G., 3959
Kroon, A. G. M., 3083
Kropp, Bradley R., 3217
Kubatova, Elena, 3667
Kubo, Motoki, 3779
Kubota, Masatsugu, 2832
Kuda, Takashi, 371
Kudo, Yasuo, 920
Kuenen, J. G., 2227
Kuester, R. K., 747
Kühl, Michael, 1164
Kuiack, Cathy, 1451
Kukor, J. K., 3941
Kulander, K., 99
Kumagai, Keiko, 2449
Kumar, G. Seshu, 1918
Kunka, Blair S., 2360
Kunz, Daniel A., 2022
Kurasawa, Takashi, 106
Kusunoki, Shinji, 1394

Laakso, Simo, 2338
Laakso, Simo V., 1656
Laanbroek, Hendrikus J., 1962, 3303
Labbé, Ronald G., 326, 1411
Labeda, D. P., 532
Lacaze, Pascal, 815
Lacis, Lynda S., 761
Laguerre, Gisèle, 1894
Lai, Mei-Chin, 2438
Laitinen, Sirpa, 3774
Lajoie, C. A., 655
Lalonde, Maurice, 291
Lambert, Bart, 2536
Lammerding, A. M., 3991
Landuyt, Sandra L., 1797
Langenbach, Tomaz, 3173
Langholz, Ann C., 717
Langworthy, Thomas A., 3472
Lanser, Janice, 706
Larsen, Susan, 365
Larsson, Lennart, 3538
Latham, Catherine J., 2730
Laurent, Franck, 1524
Lauten, S. D., 1240
Lawford, Hugh G., 761
Layton, Alice C., 399
Leach, J. E., 2188
Leahy, Joseph G., 2266
Lebeault, Jean M., 3150
LeBlanc, Ronald P., 2231
Lebrun, Maryse, 3183
Lecadet, M. M., 840
Leclerc, Henri, 1524
Lecours, N., 1727
Ledeboer, Aat M., 2360
Lee, Byungtae, 731
Lee, Chiayin, 3419
Lee, Chung-Ginn, 3271
Lee, Kyu-Ho, 942
Lee, Marcia R., 2711
Lee, Richard E., Jr., 2711
Leer, R. J., 3792
Legge, Raymond L., 3117
Leib, Terry K., 1823
Leimeister-Wächter, Michaela, 765
Leitz, Ramone, 1524
Lejczak, Barbara, 2993
Lejeune, Andre, 4016
Lemanceau, Philippe, 2978
Lenke, Hiltrud, 2928, 2933
Leon, Oscar, 4060
Leonard, Thomas J., 455
Leong, Jo-Ann C., 6
Leong, John, 630
Lereclus, D., 840
Leslie, J. F., 2799
Letellier, François, 3784
Leung, H., 2188
Levasseur, Stéphane, 1524
Lewis, David L., 1
Lewus, Catherine B., 143
Leyer, Gregory J., 2075
Liaw, Hungming J., 260
Licht, Dorthe, 2874
Lien, Torleiv, 1244
Liesivuori, Jyrki, 3774
Lillehaug, Dag, 750
Limet, Joseph N., 1024
Limsowtin, Gaëtan K. Y., 3429
Lin, Xiang, 3271
Lindén, Torbjörn, 1661

Lindow, S. E., 3908
Lindqvist, Roland, 2211
Lindström, E. Börje, 1046
Ling, W.-H., 3660
Ling, William, 496
Linz, John E., 3527
Lipski, André, 2053
Litchfield, C. D., 1719
Liu, Moon-Lan, 3419
Liu, Rui-Long, 1878
Livasy, C. A., 740
Ljungdahl, Lars G., 3762
Ljungh, A., 42
Lobos, John H., 1823
Lock, Maurice A., 2030
Loeffelholz, Jodi M., 2513
Loessner, Martin J., 296
Logan, Bruce E., 4048
Loosmore, Sheena M., 208
Lopez, Maria M., 2683
Lorenz, Michael G., 3012
Lorenzo-Lorenzo, M. J., 3514
Lortie, L., 4042
Loulergue, Joelle, 3183
Love, Susan F., 1376
Lovley, Derek R., 850, 3211
Luccini, Gladys Martinetti, 1940
Luchansky, John B., 709, 3053
Lucivero, Giacomo, 769
Lugtenberg, Ben J. J., 3709
Lundberg, Erik, 3744
Lüthi, E., 3864
Lüthy, J., 1564
Luukkainen, R., 2495
Lyons, A. J., 532
Lytle, C. D., 747
Lytle, C. David, 3180

Macalady, Donald L., 1746
Macario, Alberto J. L., 862, 3677
Macfarlane, George T., 1195
Macfarlane, Sandra, 1195
Mackay, Noelle J., 208
Mackie, Roderick I., 66, 4032
Mackintosh, C. G., 3196
MacRae, Ian C., 1776
Madsen, Torben, 557, 2874
Magariños, B., 3316
Maglione, Giuseppe, 3593
Magnuson, Timothy S., 1070
Mah, Robert A., 260
Maiese, William M., 1376
Makemson, John C., 2341
Malina, Halina, 895
Malvar, Thomas, 3921
Manchak, Janet, 2866
Mano, Denise M. S., 3173
Manulis, Shulamit, 3932
Mara, D. Duncan, 1335
Marcellino, Sr. Noëlla, 3448
Marchessault, Robert H., 744
Marín, María Eugenia, 1067
Marion, P., 1175
Maris, Doris, 3380
Marlett, Judith A., 3330
Marquis, Robert E., 2287
Martens, Toon, 2901
Martikainen, Pertti J., 3774
Martin, Jean-Guy, 2960
Martin, Ron, 2066
Martinez-Molina, Eustoquio, 1816
Martins, M. T., 3095
Marugg, Joey D., 2360
Maruyama, Chikako, 4072
Masson, Luke, 642
Mata, M., 2479
Mateos, Pedro F., 1816
Materassi, Riccardo, 1569
Mather, Michael W., 421
Mathrani, Indra, 3677
Matin, A., 331
Matsuda, Osamu, 562
Matsumoto, Seiji, 3574
Matsunaga, Tadashi, 686
Matsuoka, Naoki, 2449
Matsushita, Mitsugu, 1227
Matsushita, Osamu, 3593
Matsushita, Sumio, 1577
Matsuyama, Tohey, 1227
Matte, Allan, 157
Mattheis, J. P., 3170
Matthies, Carola, 1435
Mattila-Sandholm, T., 2153
Maurer, Arthur J., 3053
Mavingui, Patrick, 1894
May, Harold D., 4051
Mazurier, Sylvie-Isabelle, 1913
Mazzola, Mark, 2616
McCarty, P. L., 1886
McCready, R. G. L., 4042
McDaniel, Julie, 2381
McIntosh, D., 243
McKay, Larry L., 125, 476, 1952
McKenzie, Cynthia H., 773
McKinley, Vicky L., 1554
McLean, Robert J. C., 405
McLoughlin, T. J., 1760
McMullan, G., 1364
Meadows, Martin P., 1344
Meister, John J., 3225
Melchers, W. J. G., 2606
Merli, S., 2691
Merlin, Françoise, 1524
Mew, T. W., 2188
Miao, V. P. W., 801, 809
Michaelsen, Monika, 3072
Michel, Frederick C., Jr., 1740
Michel, Tomas, 2670
Middaugh, Douglas P., 2840
Miller, Karen J., 471, 1402
Miller, Kathleen W., 2176
Miller, Lois K., 1583
Miller, Louise D., 208
Miller, Raina M., 3276
Miller, Robert V., 2046
Milstein, Oleg, 3225
Minami, Kazushi, 371
Minamisawa, Kiwamu, 2832
Minervini, Fiorenza, 769
Minton, Nigel P., 2345
Mirocha, C. J., 3196, 3233
Mirocha, Chester J., 3928
Mirza, U. A., 3196
Mishra, S. K., 2089
Mitsuda, Yuichi, 3779
Mitsuya, Takahito, 4072
Miura, Isao, 703
Miyamoto, Katsushiro, 371
Miyazaki, Kentaro, 93
Mliki, Ahmed, 916
Moar, William J., 642
Moen, Mark A., 1832
Mohn, William W., 1367, 2131, 3088
Molyneaux, Stephen J., 3472
Monget, D., 1857
Monna, Lisa, 911
Monsma, David J., 3330
Montville, Thomas J., 143, 891, 2255, 2463
Moon, P., 3694
Moore, W. Bruce, 1
Mora, E. C., 1240
Moran, Mary Ann, 3630
Moreau, R. A., 2123
Morehead, M. C., 1617
Morel, Marina, 1780
Moreno, B., 2245
Morgenthaler, Phaik, 3165
Morin, Nicole, 545
Morosoli, Rolf, 815
Morotomi, Masami, 4076
Morrill, W. E., 2001
Morris, J. Glenn, Jr., 737
Morris, John, 630
Morris, Pamela J., 3088, 3249
Morrison, Mark, 66
Mountfort, Douglas O., 237
Moyer, Nelson P., 1940
Muela, Alicia, 392, 3903
Muriana, P. M., 279
Muroga, K., 3078
Murphy, Randy C., 1650
Murphy, Susan K., 2771
Murray, Robert E., 3890
Mustin, C., 1175
Myers, Charles R., 439

Nadeau, Paul, 2846
Nagakura, Masatoshi, 1577
Nagappan, Olagappan, 2022
Nagaraja, T. G., 2410
Naharro, Germán, 1031
Nair, G. Balakrish, 2485
Nakahara, Tadaatu, 3067
Nakai, T., 3078
Nakajima, A., 3078
Nakajima, Toshiaki, 3067
Nakamura, Noriyuki, 686
Nakamura, Takashi, 2474
Nakas, J. P., 3501
Nakasono, Satoshi, 686
Namikoshi, M., 2495
Narro, Martha L., 1351, 1360
Natarajan, M. R., 2701
Nawaz, Mohamed S., 27
Nealson, Kenneth H., 439
Neilson, Alasdair H., 961
Neilson, Julia W., 1271
Nelms, Jennifer, 2592
Nelson, Chad M., 1789
Nelson, P. E., 2799
Nelson, Paul E., 984
Nes, I. F., 1417
Nes, Ingolf F., 750
Nesme, Xavier, 2717
Neufeld, Ronald J., 1429
Nevalainen, Aino, 3774
Nguyen, Marie-Hélène, 1308
Nicholson, David K., 2280
Nickerson, Kenneth W., 2505, 3826
Nicolaï, Bart M., 2901
Nicole, M., 1727
Niederhauser, C., 1564
Nielsen, Per H., 3020
Niemeyer, Frank, 3240
Nies, Loring, 1057
Niesters, H. G. M., 2606, 3804
Nikata, Toshiyuki, 2250
Nilsson, Thomas, 3667
Ninet, B., 4055
Nishibuchi, Mitsuaki, 2449
Nishino, S. F., 1719
Nissen-Meyer, J., 1417
Nissen-Meyer, Jon, 750
Noll, Kenneth M., 3949
Nordström, Katrina M., 1656
Norland, Svein, 1624
Normand, Philippe, 1569
Norred, William P., 169
Nörtemann, Bernd, 671
Notermans, Serve, 765
Novak, John S., 3501
Novotny, James F., Jr., 2393
Nüßlein, Klaus, 3380
Nybroe, Ole, 252
Nyström, Thomas, 55

Obenhuber, D. C., 2089
O'Bryan, Patricia J., 1082
Obst, U., 3187
Obukowicz, Mark G., 1511
O'Callaghan, M., 3873
O'Connell, M., 3047
O'Connor, Owen A., 2730
O'Donnell, A. G., 2517
Oei, Coreen, 905, 1794
O'Gara, F., 3873
O'Gara, Fergal, 353, 630
Ogawa, Takahira, 703
Ogawa, Yuhzoh, 1276
Ogg, Clyde, 2505
Ogunseitan, O. A., 2046
Oh, K.-C., 655
Ohtake, Hisao, 2250
Ohtsubo, Sadami, 703
Okabe, Mitsuyasu, 2081
Okamoto, Rokuro, 2081
Okereke, Amechi, 2463
O'Kiely, P., 3047
Okuda, Katsuji, 3399
Okuma, Emiko, 734
Olafsen, Jan A., 461
Oliver, James D., 737, 2432, 2771
O'Loughlin, Edward J., 3423
Olsen, R. H., 3941
Olson, Betty H., 754, 2292, 2649, 2918, 3095
Olson, Doug, 3928
Olson, Gregory J., 1853
Olson, Patricia E., 2820
Olsson, J. Christer, 551
Olsson, Rose Marie, 55
Olurinola, Philip F., 758
Omiecinski, Curtis J., 4080
Omori, Toshio, 911
O'Neill, Kathleen R., 3257
Onodera, Shingo, 2832
Orden, José A., 4083
O'Reilly, David R., 1583
Oremland, Ronald S., 426, 2983

Oriel, P., 2701
Orser, Cindy S., 502
Orsi, Nicola, 2886
Osawa, Ro, 1754
Osborn, A. M., 3413
Oshima, Tairo, 93
Osman, S. F., 2123
O'Sullivan, Daniel J., 353, 630
Otero, A., 2245
Ouellette, G. B., 1727
Ouyang, Y., 1609
Owens, James R., 513

Pace, Norman R., 3417
Page, William J., 1398, 2866
Paget, Eric, 2717
Pahl, Armin, 3522
Pal, Amit, 2485
Pal, S. C., 2485
Papavinasasundaram, K. G., 2071
Park, C. E., 2509
Parke, Donna, 2694
Parniske, Martin, 1705
Parsons, Laura L., 3890
Pasti-Grigsby, Maria B., 3598, 3605
Paszczynski, Andrzej, 3598, 3605
Patchett, Roy A., 3959
Patel, Girishchandra B., 2894
Patterson, John A., 385
Patterson-Curtis, Sandra I., 2334
Payne, William J., 3586
Pedersen, Jens Christian, 1064
Peek, Daniel C., 2280
Peeler, J. T., 2776
Peeler, James T., 2096
Peetre, Johan, 1661
Peferoen, Marnix, 2536
Peigue-Lafeuille, Hélène, 3517
Peladan, Fabrice, 1524
Pellerin, Nancy B., 3130
Peltonen, R., 3660
Pemberton, J. M., 418
Pepper, Ian L., 636, 1271
Perez, Juana, 2402
Perille Collins, Mary Lynne, 2302
Perry, Jerome J., 2393
Peruzzo, Gina, 4060
Pestka, James J., 169
Peters, Francesc, 593
Petit, Annik, 1780
Petrolini, B., 2691
Pettigrew, Charles A., 2237
Petzel, James P., 125, 1952
Pfeffer, P. E., 821
Phelps, Patricia A., 3701
Phillips, Elizabeth J. P., 850
Phipps, D., 1801
Piard, J.-C., 279
Picard, Christine, 2717
Pielken, Petra, 3347
Pieper, Dietmar H., 2928
Pierson, D. L., 2089
Pierson, L. S., III, 2616
Piette, J.-P. Gabriel, 2783
Pilkington, D. H., 884
Pillai, Suresh D., 1271
Pincus, David H., 2704
Pipke, Rüdiger, 1249, 1259
Plattner, R. D., 2799
Plattner, Ronald D., 169, 857, 984
Plugge, C. M., 1054
Pollack, S. S., 1853
Pollock, Thomas J., 877
Polzin, Kayla M., 476
Pomeroy, L. R., 359
Pometto, Anthony L., III, 731
Poncelet, Denis, 1429
Pond, W. G., 1645
Ponsonnet, Cecile, 2717
Poplawsky, A. R., 1986
Poppelier, Miriam J. J. G., 3868
Pos, Klaas M., 285
Posthumus, Maarten A., 1996
Pothuluri, Jairaj V., 937, 3654
Potts, Donald, 1382
Pouleur, Stéphan, 2960
Pouwels, P. H., 3792
Powell, Ian B., 1772
Powell, Richard, 1039
Prévost, Danielle, 2846
Preyer, Janet, 737
Price, W. Allen, II, 4051
Pries, Frens, 976
Prieto, M., 2245
Pritchard, Graham G., 3263
Pronk, J. T., 2227
Prosen, Elizabeth, 1699
Prosser, James I., 2444
Proud, David W., 1035
Pucci, Michael J., 2360
Puskeppeleit, Monika, 2355
Pybus, Vivien, 237

Qi, Bo, 2820
Quaroni, S., 2691
Que, Lawrence, Jr., 2820
Quénée, Pascal, 1011
Quensen, John F., III, 409, 1110, 3088, 3249
Querol, Amparo, 2948
Quinn, J. P., 1364, 1760
Quint, W. G. V., 2606, 3804
Quintana, Luis, 4060
Quintern, Lothar E., 2355

Radcliffe, D. E., 857
Radehaus, Petra M., 2879
Rajan, S., 4042
Rajendran, Narasimmalu, 562
Ramamurthy, T., 2485
Ramón, Daniel, 2948
Ramos, Cayo, 1677
Ramos, Juan L., 415
Ramsay, Bruce A., 744
Ramsay, Juliana A., 744
Rapp, Martin L., 900
Rasmussen, Ole F., 2458
Ratanakhanokchai, Khanok, 2490
Ratinaud, Marie Hélène, 3784
Ray, Bibek, 3355
Ray, M. K., 1918
Raya, R. R., 187
Rayman, M. K., 2509
Reagin, Michael J., 3977
Reddy, C. Adinarayana, 1740
Rehnstam, Ann-Sofi, 3744
Reid, Gregor, 1549
Reid, Ian D., 3217
Reid, Julian R., 3263
Reinhard, Martin, 786, 794, 3192
Remberger, Mikael, 961
Remsen, C. C., 2302
Ren, Tao, 3130
Renault, Pierre, 4045
Renganathan, V., 2397
Revsbech, Niels Peter, 303
Reyes, A. L., 2776
Reysenbach, Anna-Louise, 1794, 3417
Rhoads, M. L., 2188
Ribadeau-Dumas, Bruno, 2144
Ribier, J., 840
Rice, Scott A., 2432
Rich, Jessica J., 1440
Richard, Claude, 2960
Richard, J. L., 233
Ridgway, H. F., 1801
Riemann, Bo, 252
Rinehart, K. L., 2495
Ringelberg, D., 3367
Ringø, Einar, 3777
Rio, B., 1727
Riou, Christine, 578
Rippey, Scott R., 826, 1371
Ritchie, D. A., 3413
Ritmeester, Wilma, 1913
Ritter, Edward R., 496
Rittschof, Dan, 2111
Ritzenthaler, P., 2479
Rivera, I. G., 3095
Rivero, Octavio, 1031
Roberson, Emily B., 1284
Robert, Françoise M., 1050
Robert-Gero, Malka, 895
Roberts, Deborah J., 1683
Roberts, Mary F., 2438
Roberts, R. G., 3170
Robertson, B. K., 38
Robertson, B. R., 243
Robertson, Diane E., 2438
Robertson, Jeffrey B., 2643
Robertson, L. J., 3488, 3494
Robinson, Joseph A., 1027
Rocourt, J., 1857
Rodriguez, G. G., 1801
Rodriguez, Manuel A., 326, 1411
Rodriguez-Quiñones, Francisco, 1878
Rogers, Julie, 2326
Rogers, Robert D., 2723
Rohde, Katrin, 85
Rohlfing, Stephen R., 717
Romaine, C. P., 3060
Romalde, J. L., 3316
Romanowski, Gerd, 3012
Romero, Dennis A., 699
Rosazza, John P. N., 2116
Rothstein, David M., 1376
Rotnitzky, Andrea, 181
Rouhiainen, L., 2495
Rousseau, Micheline, 285, 1011
Routson, Licia B., 3180
Rouxhet, P. G., 1326
Roy, Brian, 1496
Ruby, Edward G., 942
Rudy, Brent, 2866
Rupar, Mark J., 3921
Ruseler-van Embden, Johanneke G. H., 111
Russek-Cohen, Estelle, 2965
Russell, C., 3367
Russell, J. B., 969, 3954
Russell, James B., 1115, 2040, 3593

Sadowsky, M. J., 3360
Sadowsky, Michael J., 720, 1878
Saegerman, Claude, 1024
Sagripanti, Jose-Luis, 3157
Sahm, Hermann, 3347
Said, Mazin F., 1423
Saiki, Takashi, 734
Saiki, Yuko, 911
Sakaguchi, Kenji, 4016
Sakai, Masahiro, 1061
Sakamoto, Takashi, 371
Salminen, Seppo O., 607
Salyers, Abigail A., 869, 1313, 1534, 1541, 2698, 2764
Sand, Wolfgang, 85
Sanden, G. N., 2001
Sangster, Norma, 706
San Romão, M. Vitória, 2271
Sanseverino, John, 399
Santos, Helena, 2271
Saracchi, M., 2691
Saracovan, Ilie, 744
Sardi, P., 2691
Sarvis, H., 1240
Sasaki, Takashi, 948
Sato, Kanji, 734
Sato, Masakazu, 520
Saul, D. J., 3864
Savage, Dwayne C., 1992
Sayler, G. S., 1839, 2046
Sayler, Gary, 3012
Sayler, Gary S., 399
Scalzo, M., 3834
Schaffner, Donald W., 3337
Schell, Mark A., 3630
Schendel, Frederick J., 335, 2806
Schildhauer, C. I., 3203
Schimz, Karl-Ludwig, 3347
Schink, Bernhard, 1435, 1861, 2164
Schippers, Bob, 2978
Schisler, David A., 2260
Schlagnhaufer, B., 3060
Schleifer, Karl-Heinz, 3007
Schlochtermeier, André, 3240
Schmidt, E. L., 3360
Schmidt, Jens E., 862
Schmidt, Stefan, 2744
Schmidt, Steven K., 2879
Schmitz, Annegret, 4068
Schmotzer, Wayne B., 2730
Schmukler, R. E., 747
Schneider, Jörg, 3932
Schnell, N., 132
Schnell, Sylvia, 1861
Schnürer, Johan, 2599
Schoeni, Jean L., 664
Schott, Jobst-Ulrich, 2355
Schouler, C., 2479
Schouten, W. Ruud, 111
Schraa, Gosse, 1636, 1996
Schramm, Edgar, 2164
Schrempf, Hildgund, 3240, 3932
Schroeter, B. M., 3941

Schulze-Röbbecke, Roland, 1869
Schuppenhauer, Michael R., 1789
Schut, Frits, 1466
Schwarzenbach, René P., 1945
Seal, Susan E., 3751, 3759
Séchaud, Laurent, 1011, 3429
Seidler, Ramon, 1207
Seki, Takayuki, 2832
Sekine, Kenji, 734
Selander, Robert K., 1809
Serino, Laura, 2886
Servin, Alain L., 2034
Sewell, Guy W., 1392
Shabtai, Yossef, 174, 677
Shackelford, D. D., 2799
Shackelford, Darcy D., 984
Shadman, Farhang, 724
Shahriari, Homayoon, 1530
Shalita, Zamir P., 3455
Shanahan, Phil, 353
Shareck, François, 815
Sharp, R., 2517
Shaw, Joe J., 267
Sheldon, Brian W., 1786
Sheldon, W. M., Jr., 359
Shelton, Daniel R., 1027, 1459
Shen, Ren-Quan, 2531
Sheng, Zu-Jia, 2531
Sherr, Barry F., 2381
Sherr, Evelyn B., 2381
Shi, Y., 2583
Shiaris, Michael P., 2426
Shibata, Annemarie, 3826
Shields, Malcolm S., 3977
Shiga, Yasuhiro, 525
Shih, Jason C. H., 3271
Shimada, Kunio, 1577
Shimada, Toshio, 2485
Shimizu, Sakayu, 2196
Shirasaka, Norifumi, 2196
Shivaji, S., 1918
Shoda, Makoto, 1183
Shoemaker, Nadja B., 1313
Shonnard, D. R., 2737
Shute, Elizabeth, 431
Siddiqui, Pirzada J. A., 3122
Siebeling, Ronald, 737
Sieracki, Michael E., 584
Sigoillot, Jean-Claude, 1308
Silcock, Deborah J., 2444
Silva, Salomao A., 1335
Silva-Avalos, Juan, 2022
Šimek, Karel, 3715
Simon, Luc, 291
Simonet, Pascal, 1569, 2717
Simonetti, G., 3834
Simonetti, N., 3834
Simons, Alex P., 1
Simpson, Linda M., 737
Simpson, Paul, 353
Sims, Gerald K., 3423
Sinclair, Norval A., 2231
Sinclair, Pauline D., 3777
Singleton, Fred L., 21, 201
Sinnwell, Volker, 1005
Siragusa, Gregory R., 3482, 3508
Sivonen, K., 2495
Skoog, Kerstin, 2552
Skory, Christopher D., 3527
Slaney, Annette C., 3921
Slater, Steven, 1089
Slebe, Juan Carlos, 4060
Sletten, K., 1417
Šlosárek, Milan, 3538
Smaglinski, Silke, 3561
Smeltzer, Mark S., 2815
Smit, Gerrit, 3709
Smith, A., 3694
Smith, A. E., 3941
Smith, Geoffrey B., 376
Smith, Geoffrey D., 3561
Smith, H. V., 3488, 3494
Smith, Jim, 3177
Smith, M. Scott, 3890
Smith, Peter R., 1039
Smith, Richard L., 1746
Smits, P. H., 1975
Snowden, Lesley J., 1134
Sobecky, Patricia A., 3630
Sobotke, Birgit, 85
Sode, Koji, 686
Söderbäck, Erik, 3122
Söderhäll, Kenneth, 1043
Soetaert, Piet, 2536
Solanas, A. M., 2910
Solfrizzo, Michele, 769
Söll, Dieter, 3165
Sollod, Cynthia Cooperman, 444
Sondossi, M., 485
Sonnenberg, Anton S. M., 3553
Sørensen, Jan, 303, 2375
Sory, Marie-Paule, 1024
Soucaille, Philippe, 1075
Southam, G., 1904
Spadaro, Jack T., 2397
Spain, J. C., 1719
Spain, Jim C., 2237, 2643
Spaulding, P. L., 2776
Speitel, Gerald E., Jr., 3701
Spengler, John D., 181
Spiker, Jennifer K., 3199
Sprott, G. Dennis, 2894
Squartini, Andrea S., 1816
Stachow, Chester, 1201
Stahl, D. A., 614
Stahl, David A., 2158, 3007
Stahly, D. P., 740
Stahmann, K.-Peter, 3347
Staley, James T., 3130
Stams, A. J. M., 1054
Stams, Alfons J. M., 346, 1636
Starmer, William T., 990
Staten, Nicholas R., 1511
Stegeman, H., 3804
Steinberg, Nisan A., 426
Steinmetz, I., 3187
Stelma, G. N., Jr., 2776
Stephens, P. M., 3873
Stevens, Kelly A., 1786
Stevens, S. Edward, Jr., 1650
Stevens, Todd O., 1683
Stewart, Mic H., 2649, 2918
Stewart, Philip, 1379
Stoddard, Gary W., 1952
Stoffels, G., 1417
Stöllman, Ulla, 2599
Stone, C. E., 2296
Stormo, Keith E., 727
Stotzky, G., 1592, 1930
Stowe, R. P., 2089
Straub, Timothy M., 636
Straver, Marika H., 3709
Streeter, John G., 607
Strike, P., 3413
Strobel, Herbert J., 2331
Strøm, Arne, 1980
Strøm, Ellen, 461
Strom, P. F., 655
Stromley, J., 614
Strong-Gunderson, Janet M., 2711
Sturr, Michael G., 2287
Su, H. Jenny, 181
Su, Tah-Mun, 1823
Su, Yuan-Chi, 3419
Suarez, G., 434
Suárez, Guillermo, 4083
Sugio, Tsuyoshi, 431, 1768
Sugita, Haruo, 4072
Sugiura, Minoru, 1394
Sumida, Ken, 2250
Sun, F., 2495
Sun, Stephen, 143
Sundh, Ingvar, 2938
Suto, Manabu, 106
Suttle, Curtis A., 3721
Sutton, Scott V. W., 1035
Suutari, Merja, 2338
Suzuki, Isamu, 3767
Suzuki, Satoru, 3410
Suzuki, Seibun, 2633
Swanson, Paul E., 3404
Sylvestre, M., 485
Sylvia, D. M., 229
Szabo, E. A., 418
Szakács, György, 3466

Tabashnik, Bruce E., 3343
Tailliez, Patrick, 3429
Tajana, Eleonora, 1447
Takagi, Aya, 3574
Takagi, Masahiro, 3779
Takagi, Yoshio, 734
Takama, Kozo, 3410
Takamuku, Toshihiro, 686
Takao, Shoichi, 106
Takazoe, Ichiro, 3399
Takeda, Kiyoshi, 2751
Takeda, Tae, 2485
Takeda, Yoshifumi, 2449, 2485
Takefman, D. M., 740
Takeuchi, T. L., 3767
Takizawa, Noboru, 1276
Tamplin, Mark L., 1506
Tan, Paris S. T., 285
Tan, YuPing, 1402
Tanaka, Hidehiko, 1768
Tanaka, Hideki, 1577
Tanaka, Ryuichiro, 4076
Tanaka, Yasuo, 2751
Tanenbaum, S. W., 3501
Tano, Tatsuo, 1768
Tapia De Daza, Maria Soledad, 2093
Taroda, Hiroyuki, 2751
Tartera, Carmen, 2670
Taylor, R. T., 2737
Thaler, J.-O., 3032
Thanabalu, Thirumaran, 905, 1794
Théberge, Michèle, 815
Thiel, Teresa, 900
Thomas, A. B., 884
Thomas, Connor J., 3816
Thomashow, Linda S., 2616
Thomson, C. M. A., 932
Thonnard, Janeen E., 1839
Thorne, Linda, 877
Thorne, Peter S., 2543
Thorsen, Berit K., 1624
Thuault, D., 4064
Tiedje, J. M., 3941
Tiedje, James M., 376, 409, 1110, 3088, 3249
Tierney, John T., 2096
Timmis, Ken, 3380
Timmis, Kenneth N., 1249, 1259
Tobin, John M., 3883
Tokiwa, Yutaka, 2751
Tomeczek, Lisa, 1549
Tomioka, Noriko, 1019
Tomita, Fusao, 106
Tomoyasu, Takahiro, 2679
Tompson, A., 2737
Tondreau, S. C., 747
Tong, Suxiang, 3826
Toonen, Marjolein Y., 2360
Toora, Syed, 3177
Topisirovic, L., 4086
Topp, Edward, 502
Toranzo, A. E., 3316
Torensma, Ruurd, 3868
Torsvik, Terje, 1244
Towne, Gene, 2410
Truex, Michael J., 2386
Truscott, W., 747
Trust, Trevor J., 3816
Tsai, Yu-Li, 754, 2292
Tsau, Jya-Li, 891
Tseng, Chao-Huang, 2474
Tsien, H. C., 1886
Tsien, Hsien-Chyang, 953
Tsuboi, Akio, 525
Tsujibo, Hiroshi, 371
Tsunekawa, Hiroshi, 2081
Tuovinen, Olli H., 600, 1046
Turk, Valentina, 3744

Uchiyama, Hiroo, 1019, 3067
Udaka, Shigezo, 525
Ueda, Shunsaku, 3574
Umehara, Kazuyoshi, 3879
Unanue, Marian, 3850
Urakami, Teizi, 3970
Urrutia Mera, M., 3837
Urushigawa, Yoshikuni, 562
Ushioda, Hiroshi, 920
Utkilen, Hans, 1321

Valentine, Peter C., 2764
Valentine, Peter J., 1534, 1541, 2698
Valentini, Sandro R., 412
Valero, J., 1727
Valla, Svein, 1980
Valli, Khadar, 221
Van Alfen, Neal K., 2066
Van Baalen, Chase, 1351, 1360
van Belkum, Marco J., 572, 1952
van Berkum, Peter, 2137
van Beurden, Rob, 3868
Vancauwenberge, J. E., 233

van de Giessen, Arjen, 1913
Vandenbergh, Peter A., 2360
van den Tweel, Will J. J., 2854
van den Wijngaard, Arjan J., 976
Vanden Wymelenberg, Amber, 1379, 2168
van der Kamp, Koen W. H. J., 976
van der Logt, J. T. M., 2606
van der Mei, H. C., 1326
van der Mei, Henny C., 1549
van der Ploeg, Jan, 976
van der Vossen, Jos M. B. M., 3142
van der Werf, Mariët J., 2854
Vandevivere, Philippe, 1690, 2523
Vandewalle, Joos, 2901
van Dijk, J. B., 3083
VanEtten, H. D., 801, 809
van Frankenhuyzen, Kees, 642
van Ginkel, C. G., 3083
Van Griensven, L. J. L. D., 3553
van Gylswyk, N. O., 99
Van Hoegaerden, Michel, 1524
Van Impe, Jan F., 2901
Van Kessel, J. S., 969
van Kuppeveld, F. J. M., 2606
Van Lier, Jules B., 346
van Lieshout, Leo M. C., 111
Vannelli, Todd, 2321
van Zoest, M. J., 2606
Varel, V. H., 1645
Vargas, Madeline, 3949
Vazquez-Boland, J. A., 434
Veenhuis, Marten, 1190
Veiga-Da-Cunha, Maria, 2005, 2271
Venegas, L., 747
Venema, Gerard, 572, 3142
Vera Cruz, C. M., 2188
Verdoni, Nicole, 3150
Verhagen, Frank J. M., 1962, 3303
Verhoef, Jan, 3868
Verrips, C. Theo, 3787
Verstraete, W., 3792
Verzili, Daniela, 2886
Vesley, Donald, 717
Vestal, J. Robie, 1554
Viles, Charles L., 584
Villacorta-Martinez de Maturana, I., 3514
Visca, Paolo, 2886
Visconti, Angelo, 769
Visser, Chris, 3787
Visser, Jaap, 1190
Visser, Marit J. C., 3868
Vogel, Rudi F., 832
Vogel, Timothy M., 1057
Vohra, Rakesh M., 403
Volc, Jindrich, 3667
Vollendorf, Nicholas W., 3330
Voordouw, Gerrit, 3542
Voordouw, Johanna K., 3542
Vos, Pieter, 78
Vujcic, M., 4086

Wach, Mark, 2971
Wachenheim, Daniel E., 385, 2559
Wackernagel, Wilfried, 3012
Wackett, Lawrence P., 2820
Wadstrom, T., 42
Wagner-Döbler, Irene, 1249, 1259
Wakagi, Takayoshi, 93
Walia, Satish K., 1388
Walker, Shirley A., 2360
Wallace, William, 399
Wang, Chang-Mei, 2531
Wang, Gui-rong, 1313
Wang, Lih-Ling, 624
Wang, Li-Li, 2531
Wang, Ping, 3433
Wang, Rong-Fu, 2827
Wang, Z. N., 429
Ward, David M., 3964
Ward, Owen P., 1699
Warren, Tessie M., 2954
Warwick, Julia, 2592
Waterhouse, Rosemary N., 2444
Wathes, C. M., 932
Watkins, William D., 826, 1371
Weaver, Jane, 2764
Weaver, R. W., 2308
Webb, Oren F., 1839
Weightman, Andrew J., 1292
Weimer, P. J., 2583
Weisbeek, Peter J., 630
Wejdemar, K., 99
Weller, David M., 2616
Weller, Roland, 3964
Wernars, Karel, 765, 1913
Werner, Dietrich, 1705
Wery, J., 2654
Westbroek, P., 450
Westerdahl, Allan, 551
Westlake, Donald W. S., 3542
Wettlaufer, S. H., 3830
Wetzel, Robert G., 150
Wheatley, W. B., 1240
Whelan, Sarah M., 2345
White, Bryan A., 66, 4032
White, F. F., 2188
White, James F., Jr., 513
White, Kathy J., 431
Whitehead, Terence R., 2764
Whiting, Michael, 713
Whitmoyer, Robert E., 607
Whitten, Paul, 2543
Wickham, Gene S., 3417
Wiebe, W. J., 359
Wiedmann, Martin, 3443
Wiegant, W. M., 1301, 2654
Wiegel, Juergen, 3580
Wiese, M. V., 1986
Wilcocks, Richard, 1699
Wilkes, Heinz, 1005, 2744
Williams, D. E., 1240
Williams, Henry N., 1408
Williams, Valerie, 2954
Willis, David K., 1440
Wills, L. E., 794
Wilson, David B., 3593
Wilson, M., 3908
Wimpenny, J. W. T., 1629
Winding, Anne, 2660
Wirsen, Carl O., 3472, 3799
Witholt, Bernard, 536
Witteveen, Cor F. B., 1190
Wittich, Rolf-Michael, 1005, 2744
Wolfram, James H., 2723
Wommack, K. Eric, 2965
Woo, Kim Byung, 4016
Wood, Brent E., 2103
Woods, Sandra L., 2280
Worley, S. D., 1240
Wray, J. E., Jr., 3482
Wright, Anita, 737
Wright, Richard M., 3455
Wubbolts, Marcel G., 415
Wyndham, R. Campbell, 314

Xia, Tianhui, 2792
Xie, W., 3196
Xie, Weiping, 3928
Xu, Y., 3196
Xun, Luying, 502
Yablonsky, Michael D., 3455
Yabuuchi, Eiko, 1394
Yachi, Makoto, 106
Yacoob, Reza K., 208
Yagi, Osami, 1019, 3067
Yahya, Moyasar T., 724
Yamada, Hideaki, 2196
Yamagata, Hideo, 525
Yamagishi, Akihiko, 93
Yamaguchi, Kuniko, 2474
Yamamoto, Hiroyuki, 1394
Yamamoto, Mami, 520
Yamamoto, Nobuto, 1784
Yamamoto, Takaharu, 4076
Yamane, Tsuneo, 3574
Yamasaki, Shinji, 2449
Yamashita, Michio, 3879
Yan, W. M., 429
Yang, C.-M. J., 3954
Yang, Rongguang, 3355
Yang, Wei, 2116
Yashima, Kazuya, 3970
Yasui, Yohko, 1577
Yates, Marylynn V., 1609
Ye, Dingyi, 1110
Yersin, M.-N., 1857, 2011
Yokoyama, Hideo, 1276
Yonemura, Sotaro, 734
Yoshida, Akio, 3970
Young, J. P. W., 1809
Young, L. G., 3857
Young, L. Y., 496

Zakrzewska-Czerwinska, Jolanta, 3932
Zarda, Boris, 3007
Zboińska, Ewa, 2993
Zealey, Gavin R., 208
Zehnder, A. J. B., 1054
Zehnder, Alexander J. B., 1636, 1996
Zeller, Wolfgang, 3522
Zenneck, Claus, 85
Zeyer, Josef, 1945
Zhang, Xiaoming, 3580
Zhang, Yimin, 3276
Zhao, Genshi, 2792
Zimmermann, Wolfgang, 916, 1447
Zinder, S. H., 3323
Zinder, Stephen H., 3622
Zink, Ralf, 296
Ziola, Barry, 713
Zoetmulder, Leonie C. M., 2360
Zylstra, G. J., 3407

SUBJECT INDEX
VOLUME 58

abi
transfer to *Lactococcus* chromosome, 3283
Acacia albida
Bradyrhizobium spp., 2415
Acanthamoeba polyphaga
L. pneumophila phenotype, 2420
Accuprobe *Listeria monocytogenes* Culture Identification Reagent Kit
application in broths, 4055
Acenaphthene
fungal metabolism, 3654
Acetate
Bacillus citrate synthase, 335
catabolism during methanogenesis, 3323
tolerant *S. cerevisiae*, 1661
utilization by *M. soehngenii*, 703
Acetate metabolism
Mg^{2+} and methanogens, 862
Acetate oxidation
Letter to the Editor, 3205
Aceticlastic methanogens
acetate utilization comparison, 703
Acetoin
L. plantarum pH homeostasis, 891
Acetylene
effect on *T. denitrificans*, 1601
Acetylene block technique
alkylbenzene degradation, 3395
Acid environments
Salmonella spp., 2075
Acid tolerance
F-ATPases, 2287
Acid-inducible stimulons
E. coli, 2704
Acidophiles
ferrous iron oxidation, 1423
Acinetobacter spp.
4-chlorobenzoate degradation, 1385
Acremonium coenophialum
ergopeptide alkaloids, 857
Activated sludge
C. parvum oocyst removal, 3514
genetically engineered microorganisms, 3380
Active yeast cells
detection in frozen dough, 2153
Acyloin
formation by *P. putida*, 1699
Adaptation
aquatic bacteria and chloroaromatics, 314
GEMs and lake water, 3630
L. monocytogenes and salt, 3959
Adenine methylation
R. flavefaciens, 66
Adenylate
P. aeruginosa biofilms, 1629
Adhesion
anaerobic sludge bacteria, 1054
biofilm colonization, 2954
lactobacilli and gastric epithelium, 1992
lactobacilli and hexadecane, 1549
lactobacilli and intestinal cells, 2034
P. fluorescens and meat, 2783
Aeromonads
differentiation by ribotyping, 1940
Aeromonas hydrophila
lactoferrin binding, 42
tryptophan operon cloning, 1031
Aeromonas salmonicida
detection from fish, 3816
DNA probe, 1039
Aerosols
P. multocida survival, 932
sampling in swine barns, 2543
Aflatoxins
A. parasiticus ver-1 gene, 3527
cloning of biosynthesis genes, 455
Agarase
Alteromonas sp., 4060
Agaricus bisporus
alginate-based delivery system, 3060
DNA amplification polymorphisms, 2971
growth-promoting thermophiles, 2654
mitochondrial transmission, 3553
Agmenellum quadruplicatum
cryIVD gene expression, 1650
larvicidal activity, 1650
phenanthrene metabolism, 1351
Agrobacterium tumefaciens
plasmid heterogeneity, 2683
Air filters
virus removal, 900
Airborne bacteria
wastewater treatment plants, 3774
Airborne microorganisms
sampling in swine barns, 2543
Air-handling systems
heterotrophic bacteria, 3914
Alfalfa roots
R. meliloti chemotaxis, 1153
Alginate beads
release of *L. lactis*, 1429
Alginate lyases
Vibrio spp., 2474
Alginate-based delivery system
mushroom cultivation, 3060
Alkaline dust pollution
soil bacterium community, 4026
Alkene monooxygenase
Xanthobacter sp., 3038
Alkylbenzenes
biodegradation, 786, 794, 3395
Allosteric control
E. herbicola fusion protein, 2792
Alnus spp.
Frankia spp., 1569
Alternaria alternata
mycotoxin production, 3928
polyketide synthesis inhibition, 1043
Alteromonas spp.
agarase, 4060
Aluminum
tolerant *R. leguminosarum*, 1095
Amino acid sequence
thermostable xylanases, 371
Amino acids
C. glutamicum engineering, 781
overproduction by *S. cerevisiae*, 1670
Ammonium
chemostat culture competition, 1962
competition by bacteria in soil columns, 3303
excretion by *A. vinelandii*, 1711
Amoebae
legionella detection, 2001
Amplification
rRNA genes, 3413
soil bacterium DNA, 3417
n-Amyl alcohol
copolyester synthesis, 3574
Amylases
C. aurantiacus, 2490
Amylolytic bacteria
starch degradation, 48
Anabaena spp.
microcystins, 2495
Anaerobic bacteria
B. ovatus grown on guar gum, 1534, 1541
C. sporogenes, 2463
3-chloro-4-hydroxybenzoate degradation, 3580
chlorophenol transformation, 2874
cockroaches, 2565
growth estimation, 2660
hydroxyhydroquinone transformation, 1861
isomerization of butyrate, isobutyrate, 1435
methanogenic granular sludge, 1054
P. massiliensis, 1861
subgingival bacteria, 1326
1,2,3-trichlorobenzene dechlorination, 1636
Anaerobic membrane bioreactors
wastewater treatment, 2751
Anaerobic protozoa
cockroaches, 2565
Analytes
retention in lysimeters, 1
Ancylobacter aquaticus
1,2-dichloroethane degradation, 976
Animal feed mill
B. thuringiensis, 1341
Anionic surfactants
oxidation, 1308
Anopore filters
study of nano- and picoplankton, 773
Antibacterial agents
jenseniin G, 215
lacticin 481, 279
ovine rumen and jacobine, 2559
Antibiotics
biphenomycin A, 3879
2,4-diacetylphloroglucinol, 353
isopenicillin N, 4038
phenazine-1-carboxylic acid, 2616
production in *E. coli*, 4038
rifamycin B, 403
subtilin, 132
tetracycline resistance gene, 1313
thiostrepton, 895
Antibodies
fumonisins, 169
Antifungal agents
sunflower wilt suppression, 1760
n-tributyltin acetate, 758
yam rot fungi, 758
Antigens
L. lactis phages, 2479
P. piscicida, 3316
Antimicrobial agents
bacteriocin, 143, 2393, 3508
biocides against biofilms, 3770
metal-based reagents, 3157
nisin, 2463, 3730
silver ion, 3834
Antitumor antibiotics
M. echinospora, 1376

Antiviral agents
glutaraldehyde, 3517
API *Listeria*
one-day identification, 1857
Aquaspirillum magnetotacticum
redox cycling of iron, 1102
Aquatic environments
bacterioplankton dynamics, 3387
chloroaromatic degradation, 314
E. coli culturability, 3903
enteric bacterium culturability, 998
legionellae, 1394
leucine and valine uptake, 3638, 3647
protein degradation, 1374
selenate-respiring bacteria, 426
size-selective protozoan grazing, 3715
Aquatic sediment microcosms
genetically engineered microorganisms, 1249, 1259
Aquifers
benzene mineralization, 2663
degradation of contaminants, 3020
tetrachloroethene dechlorination, 1392
Arabian Gulf
luminous bacteria, 2338
α-L-Arabinofuranosidases
B. fibrisolvens, 1082
S. diastaticus, 1447
Archaea
comparative physiology, 3472
Arctic freshwater sediments
glucose and lignocellulose mineralization, 1554
Arginine
C. botulinum growth, 2334
transport by strain SR, 969
Aroclor 1242
anaerobic dechlorination, 1110
Aromatic amino acids
Arthrobacter dioxygenase, 2820
C. glutamicum engineering, 781
Aromatic catabolism
detection of intermediates, 2694
Aromatic substitution patterns
azo dye degradation, 3605
Arsenical pyrite
products of bacterial oxidation, 1046
Arthrobacter spp.
4-chlorobenzoate dehalogenation, 4068
fluorene degradation, 2910
unique dioxygenase, 2820
Arthrobacter viscosus
heteropolysaccharide formation, 3501
Aryl reductive dechlorination
anaerobic granular sludge, 3677
Aspartate carbamoyltransferase
gene cloning, expression, 3399
Aspartokinase
gene cloning, nucleotide sequence, 2806
Aspergillus niger
glucose oxidase and catalase, 1190
serine carboxypeptidases, 2144
Aspergillus parasiticus
versicolorin A conversion gene, 3522
Assimilable organic carbon
ultrapure-water systems, 724
ATP
anaerobic O-demethylation, 925
Atrophic rhinitis
P. multocida, 932
Attached bacteria
degradation of contaminants, 3020
Aureobasidium pullulans
pullulan synthesis, 877
Auxins
production by *P. syringae*, 1780
Avicelase
S. reticuli, 3240
Ayu
V. cholerae non-O1, 3078
Azo dyes
biodegradation, 2397
mineralization, 3598, 3605
Azospirillum lipoferum
endosulfan effect, 3173
Azotobacter vinelandii
Al_2O_3 particle dispersion, 3130
ammonium excretion, 1711
PHA copolymer formation, 2866
Azure B
lignin peroxidase assay, 3110

Bacillus brevis
protease inhibitor, 525
Bacillus circulans
β-1,3-glucanase, 520
Bacillus fragilis
phages, 2670
Bacillus licheniformis
iron binding by capsule, 405
keratinase, 3271
survival in seawater, 252
Bacillus macerans
detection and differentiation, 2571
Bacillus polymyxa
detection and differentiation, 2571
genetic diversity, 1894
Bacillus popilliae
medium for quantitation, 740
Bacillus sphaericus
mosquitocidal toxins, 905
Bacillus spp.
aspartokinase gene cloning, 2806
citrate synthase gene, 335
cyclodextrin glucanotransferase, 4016
Bacillus stearothermophilus
enzyme detection, 717
flash sterilization, 717
phenol degradation genes, 2531
Bacillus subtilis
genetic transformation, 1930
metal binding, 3837
transposon transfer, 2701
UV radiation dosimetry, 2355
Bacillus thermoleovorans
bacteriocins, 2393
Bacillus thuringiensis
animal feed mill, 1341
crystal protein genes, 840, 3921
insecticidal crystal protein, 2536
synergism among toxins, 3343
Bacillus thuringiensis subsp. *israelensis*
cryIVD gene cloning, 1650
mosquitocidal toxins, 905
Bacillus thuringiensis subsp. *kenyae*
crystal protein gene, 642
Bacillus thuringiensis subsp. *kurstaki*
mosquitocidal protein expression, 507
Bacillus thuringiensis subsp. *morrisoni*
72-kDa mosquitocidal protein, 507
Bacterial behavioral responses
chemical stimuli, 2250
Bacterial chromosome
lactose plasmid integration, 125
Bacterial counts
airborne bacteria, 3774
Bacterial extracellular polymers
sand column conductivity, 1690
Bacterial growth
low temperatures, 359
selenate-respiring bacteria, 426
Bacterial kidney disease
pen-cultured coho salmon, 1061
Bacterial migration
along solid surfaces, 1500
Bacterial production
marine coastal system, 3850
Bactericidal UV light
effectiveness (letter), 778
Bacteriocins
against *Listeria* spp., 3508
B. thermoleovorans, 2393
Carnobacterium sp., 1417
extraction method, 3355
jenseniin G, 215
L. monocytogenes inhibition, 3312
L. paramesenteroides, 143
lactic acid bacteria, 3355
lacticin 481, 279
lactococcin A gene cluster, 1952
nisin, 1477, 1484, 1786, 2463
nisin gene transfer, 1670
P. acidilactici, 3312
P. jensenii, 215
pediocin, 2315
pediocin PA-1, 2360
production by *E. hirae*, 3508
Bacteriophages
B. fragilis in sewage, 2670
distribution patterns, 2046
L. helveticus, 1011
L. lactis, 2479
Lactococcus abortive infection gene, 3283
Listeria spp., 296
plasmid transduction, 187
recovery, 1159
survival in shellfish, 1371
Xenorhabdus spp., 3032
Bacterioplankton
community structure, dynamics, 3387
dual staining, 2158
nutrient limitation, 150
protozoan grazing effect, 2381
Bacterivory
effect on frequency of dividing cells, 2381
flagellated protozoa, 3850
muddy tidal flat community, 2426
Bacteroides ovatus
carbohydrate sources, 2698
growth on guar gum, 1534, 1541
xylan utilization genes, 2764
Bacteroides ruminicola
glucose transport, utilization, 2040
Bacteroides spp.
polyethylene glycol degradation, 2164
Bacteroides thetaiotaomicron
chondroitin sulfate utilization, 869
Baculoviruses
insecticidal properties, 1583
Balansia epichlöe
mating system, 513
stromal development, 513
Balanus amphitrite
larval settlement inhibition, 2111

Barley rhizosphere
nitrate, nitrite, 2375
Barnacles
larval settlement inhibition, 2111
Barrier materials
filtration sizes of viruses, 747
Bdellovibrios
blue crab, 1408
Beauveria bassiana
effects on fish embryos, 2840
Beef
S. typhimurium, 3482
Beetles
insecticidal crystal proteins, 3921
Behavioral responses
bacteria and chemical stimuli, 2250
Benzene
complete mineralization, 2663
Benzocyclobutene
microbial transformation, 3404
Benzoic acid
anaerobic degradation, 696
Benzonitrile
metabolism by *K. pneumoniae*, 27
Benzoylformate decarboxylase
P. putida acyloin formation, 1699
Bethlehem St. Nectaire cheese
microbial succession, 3448
Bifidobacterium spp.
oligonucleotide probes, 4076
Bioavailability
pollutants, 1839
sorbed naphthalene, 1142
Biobleaching
unbleached kraft pulp, 3101, 3110
Biocides
efficacy against biofilms, 3770
Biocontrol
effect on nontarget fish, 2840
Japanese beetle, 740
mosquitoes, 905, 1650
potato ring rot, 1986
weedy plants, 2260
Biodegradable plastics
methanogenic degradation, 1398
PHA copolymer, 2866
Streptomyces enzyme, 731
Biodegradation
alkylbenzene, 3395
aquifer contaminants, 3020
azo dyes, 2397, 3598, 3605
benzoate, 696
biphenyl, 485
bisphenols, 1823
bromoxynil, 502
chlorinated alkenes, 3038
3-chloro-2-methylbenzoic acid, 2501
3-chloro-4-hydroxybenzoate, 3580
chloroaromatics, 314
chlorobenzene, 1719
4-chlorobenzoate, 1385
chlorobiphenyl, 485
3-chlorobiphenyl, 647
chloroform, 1886
chlorophenols, 1276, 2131
cinerean, 3347
cutin, 2123
cyanide, 3163
1,2-dichloroethane, 976
2,4-dichlorophenoxyacetate, 1027, 1271, 1459
2,4-dinitrophenol, 2928
2,4-dinitrotoluene, 221
diphenyl ether, 2744
EDTA, 671
fluorene, 2910
β-(1,3)(1,6)-D-glucan, 3347
glyphosate, 1215
herbicides, 502
isobutyrate, 1435
lignin, 2402, 3217
lignocellulose, 1121
lignopolystyrene graft copolymers, 3225
2-methylbenzoate, 194
naphthalene, 1874
nitriles, 27
nitrophenols, 690
nitrotoluenes, 2643
octadecane, 3276
oil spill hydrocarbons, 243
organic chemicals, 38
phenanthrene, 1832, 2579, 3000, 3117
phenolic compounds, 2531
pollutants, 1839
poly(3-hydroxyalkanoate), 1398
polycyclic aromatic hydrocarbons, 2219
polyethylene glycol, 2164
proline-containing peptides, 3954
protein in aquatic systems, 1374
quinoline, 2386
substituted benzenes, 2237
sulfanilic acid, 3598
toluene, 786, 794, 3192
toluene degradation metabolites, 496
trichloroethylene, 953, 1886, 3067, 3977
white rot fungi, 4048
wood, 1727
xylene, 794
Biofilms
bacterial colonization, 2954
biocide efficacy, 3770
L. pneumophila, 2326
microbial metabolism inhibitor, 2030
P. aeruginosa, 1629
population architecture, 614
sulfate reduction, 1164
sulfide oxidation, 1164
Biofilters
gram-negative, nonfermentative bacteria, 2053
Bioleaching
pyrite, 1853
sulfide ore material, 600
Biolog automated microbial identification system
evaluation, 2089
Biological clogging
bacterial extracellular polymers, 1690
Biological control
Eurasian watermilfoil, 3374
Biological indicators
flash sterilization, 717
Bioluminescence
engineered-organism detection, 267, 2444
Bioluminescence assays
pollutant bioavailability, 1839
Biomass
concentrated lactococci, 545
eutrophic bays, 562
polluted soil, 4026
Biomineralization
pyritic mine tailings, 1904
Bioreactors
low-strength-wastewater treatment, 2751
pressure effects on bacteria, 1789
Bioremediation
aryl reductive dechlorination, 3677
contaminated groundwater, 1719
dinoseb-contaminated soils, 1683
genetically engineered pseudomonad, 1259
oil spills, 243
oil tar-contaminated soils, 3117
petroleum-contaminated sites, 2579
tetrachloroethene, 1996
TNT in soil, 3199
uranium-contaminated waters, 850
Biosorption
hydrophobic pollutants, 2211
Biosurfactants
octadecane degradation, 3276
Biosynthesis
2,4-diacetylphloroglucinol, 3873
erythritol, 2271
melanin, 2861
nisin, 3730
nisins from lactococci, 3683
P. aeruginosa and pyochelin, 2886
poly(3-hydroxyalkanoates), 536
Biphenomycin A
production by a mixed culture, 3879
Bisphenols
biodegradation, 1823
Black locust
diversity among rhizobia, 2137
Blue crab
bdellovibrios, 1408
Bordetella pertussis
pertussis toxin production, 208
Botrytis cinerea
cinerean degradation, 3347
Botulinum toxin
stabilization during lyophilization, 3426
Bovine rumen
tetracycline resistance gene, 1313
Bradyrhizobium japonicum
field isolate relatedness, 2832
genes transcribed in soil and rhizosphere, 1490
lysogeny, 3360
nodulation restriction, 720
novel polysaccharides, 607
serocluster 123 repeated sequences, 1878
Bradyrhizobium spp.
leguminous tree roots, 2415
Sahelian zone of Africa, 2415
Brain heart infusion
Listeria hemolysis, 434
Brevibacterium fermentans
temperature and fatty acids, 2338
Brewing yeast
pediococcus detection, 713
Bromoxynil
biodegradation, 502
Brown rot fungi
cotton cellulose depolymerization, 1266
Brucella spp.
identification, 2099
Building-related illness
heterotrophic bacteria, 3914
2-*sec*-Butyl-4,6-dinitrophenol
soil contamination, 1683
Butyrate
isomerization by an anaerobe, 1435
Butyrivibrio fibrisolvens
anaerobic polysaccharide, 385
α-L-arabinofuranosidase, 1082

Butyronitrile
metabolism by *K. pneumoniae*, 27

Calcium
organic compound biodegradation, 38
Calcium alginate beads
concentrated lactococci, 545
release of *L. lactis*, 1429
Calcium ions
release of proteinases, 3263
Calcium phosphate
solubilization by *P. bilaii*, 1451
"*Caldocellum saccharolyticum*"
β-mannanase, 3864
Calicheamicins
M. echinospora, 1376
Callinectus sapidus
bdellovibrios, 1408
Campylobacter jejuni
epidemiology and control, 1913
poultry broiler flocks, 1913
reduction of chick colonization, 664
Campylobacter spp.
detection in chicken products, 3804
Candida humicola
extracellular protease, 1918
Capsular polysaccharides
B. licheniformis iron binding, 405
Carbohydrate sources
B. ovatus in mice, 2698
Carbohydrates
rat upper gut, 3330
Carbon cycling
Mn and Fe reduction, 439
Carbon dioxide
VAM fungus hyphal growth, 821
Carbon monoxide
metabolism during methanogenesis, 3323
Carbon sources
pentachlorophenol dechlorination, 365
Carbon-cloth electrodes
drinking water disinfection, 686
Carbon-limited chemostats
T. ethanolicus, 761
C-terminal sequencing of proteins
serine carboxypeptidases, 2144
Carcinogens
vinyl chloride, 1220
Carnations
fusarium wilt control, 2978
Carnobacterium spp.
bacteriocin, 1417
Carnocin UI49
new bacteriocin, 1417
Catabolism
aromatic compounds, 2694
genetically engineered microorganisms, 3380
naphthalene, 1874
picric acid, 2933
Catalase
A. niger, 1190
L. sake LTH677, 832
P. syringae, 2468
Catechol
aromatic compound catabolism, 2694
Catheter-associated infections
bacterial migration, 1500
Cation-exchange resin
DNA extraction from soil, 2458
Cattle
ruminal fermentation, 2410
Caulobacter crescentus
mosquitocidal toxin expression, 905
Cecal microorganisms
C. jejuni, 664
chicks, 664
cel
expression in bacteria, 1784
Cell envelope
L. lactis proteinase, 750
Cell surface
fungal photosensitizer defense, 444
S. cerevisiae flocculence, 3709
V. cholerae non-O1, 3567
Cell wall
B. subtilis metal binding, 3837
Cellobiohydrolase genes
P. chrysosporium, 2168
Cellulases
P. purpurogenum, 106
R. leguminosarum, 1816
S. reticuli, 3240
Cellulolytic bacteria
pig intestinal tract, 1645
Cellulose
attack by fungi, 1266
ethanol production, 734, 2103
fermentation, 2585
Ceramic particles
dispersion by *A. vinelandii*, 3130
Ceratocystis ulmi
dimorphism, 2505
Cercospora spp.
fungal photosensitizer defense, 444
Cercosporin resistance
Cercospora spp., 444
Cereal grains
fungal volatile metabolites, 2599
Cerulenin
polyketide synthesis inhibition, 1043
Cesium-accumulating bacteria
isolation and characterization, 1019
Charge-coupled device camera
picoplankton measurement, 584
Charge-coupled device-enhanced microscopy
detection of a single cell, 2444
Cheese
microbial succession, 3448
Salmonella spp., 2075
Chemical inactivation
L. pneumophila, 2420
Chemical stimuli
bacterial behavioral responses, 2250
Chemical stress proteins
E. coli, 331
Chemostat culture
competition for ammonium, 1962
modeling of mixed cultures, 1466
P. mendocina, 3150
T. ethanolicus, 761
Chemotaxis
hydrodynamic effects, 2737
R. meliloti, 1153
Chesapeake Bay
viruses, 2965
Chestnut blight fungus
double-stranded RNA transfer, 2066
Chicken products
Campylobacter spp., 3804
Chickpea
Nectria pathogenesis, 801, 809
Chikuwa
styrene formation, 1577
Chitinolytic bacteria
H. chitinovorans, 260
Chloramine resistance
K. pneumoniae, 2649, 2918
Chloramphenicol
denitrification inhibition, 1746
Chlorinated alkenes
biodegradation, 3038
3-Chloro-2-methylbenzoic acid
P. cepacia growth, 2501
3-Chloro-4-hydroxybenzoate
anaerobic degradation, 3580
Chloroaniline
biodegradation, 314
Chloroaromatics
biodegradation, 314
Chlorobenzene
biodegradation, 1719
Chlorobenzoate
transformation, 485
4-Chlorobenzoate
biodegradation, 1385
dehalogenation, 399, 4068
4-Chlorobenzoyl coenzyme A
enzymic dehalogenation, 1385
Chlorobiphenyl
biodegradation, 314
3-Chlorobiphenyl-utilizing bacteria
construction by intergeneric mating, 647
Chloroflexus aurantiacus
amylase, 2490
Chloroflexus-like cyanobacteria
hot spring microbial mat, 3964
Chloroform
biodegradation, 1886
Chlorophenols
degradation, 1276, 2131
reductive dechlorination, 2280
reductive dehalogenation, 1367
transformation by an anaerobe, 2874
Cholera toxin
fumonisin antibodies, 169
Chondroitin sulfate
B. thetaiotaomicron, 869
Chorismate mutase/prephenate dehydratase
E. coli pheA mutations, 2592
Chromosome
B. ovatus xylan utilization, 2764
L. lactis proteinase, 750
phage insensitivity gene, 3283
Cicer arietinum
Nectria pathogenesis, 801, 809
Ciliated protozoa
ruminal fermentation, 2410
Cinerean
biodegradation, 3347
trans-Cinnamic acid
decomposition by *P. carsonii*, 1577
Ciona intestinalis
larval settlement inhibition, 2111
cis fatty acids
conversion by *P. putida*, 1847
Citrate synthase
Bacillus sp. gene, 335
Citric acid
production by *P. bilaii*, 1451
Clams
microbial accumulation, 826
Clogging efficiency
bacteria in sand columns, 2523

Cloning
A. hydrophila tryptophan operon, 1031
aflatoxin biosynthesis genes, 455
aspartate carbamoyltransferase gene, 3399
aspartokinase gene, 2806
B. japonicum genes, 1490
B. ovatus guar gum growth genes, 1541
B. thuringiensis cryIVD gene, 1650
4-chlorobenzoate dehalogenation genes, 4068
citrate synthase gene, 335
conjugated bile acid hydrolase gene, 3792
creatinase gene, 3437
β-glucosidase gene, 3455
insecticidal protein gene, 642
isocitrate dehydrogenase gene, 93
L. sake katA gene, 832
lcnB in *E. coli*, 572
lipase gene, 1402
P. acidilactici plasmid DNA, 2360
P. glumae lipase gene, 3787
phenol degradation genes, 2531
recA, 2674
S. thermophilum tryptophanase gene, 2633
T. thermophilus, 421
type B neurotoxin gene, 2345
Clostridium acetobutylicum
extracellular muramidase, 1075
shift to solventogenesis, 3896
Clostridium beijerinckii
3-hydroxybutyryl-CoA dehydrogenase, 3297
Clostridium bifermentans
metalloproteases, 1195
Clostridium botulinum
arginine and growth, 2334
detection, 418
neurotoxin gene cloning, 2345
Clostridium pasteurianum
solvent production, 1233
Clostridium perfringens
enterotoxin production, 1411
sporulation, 1411
starch hydrolysis, 326
Clostridium sporogenes
proton motive force, 2463
Clostridium spp.
pig intestinal tract, 1645
Clostridium thermocellum
ethanol production, 734
Clostridium thermosaccharolyticum
refractile spores, 1797
Clupea harengus
intestinal microflora, 461
Coal desulfurization
Corynebacterium sp., 911
Coastal seawater
surfactant-degrading bacteria, 1308
Cockroaches
hindgut metabolic activities, 2565
Coho salmon
R. salmoninarum detection, 1061
Cold shock proteins
synthesis in rhizobia, 2846
Coleoptera spp.
insecticidal crystal proteins, 2536, 3921
Coliphages
inactivation, 3136
removal from air, 900
Colistin-polymyxin B-cellobiose agar
V. vulnificus isolation, 737
Colletotrichum truncatum
nutrition and sporulation, 2260
Colonization
aquatic plants, 3374
biofilms, 2954
C. jejuni and chicks, 664
fish intestinal tract, 551
lactobacilli and gastric epithelium, 1992
lysimeters, 1
soil solution samplers, 1
Colony immunoblotting
P. acidilactici, 2315
Colony spreading
restriction in *E. amstelodami*, 2093
Colony-forming curves
wastewater treatment, 2751
Colorado potato beetle
insecticidal crystal proteins, 3921
Colorimetric plate assay
soluble methane monooxygenase, 2231
Column leaching experiments
sulfide ore material, 600
Comamonas testosteroni
culture with *V. alcalescens*, 1466
Commercial spore powders
B. popilliae, 740
Competition
B. thetaiotaomicron, 869
chemostat cultures, 1962
denitrifying bacteria, 3890
foreign gene expression, 655
L. plantarum strains, 3845
nitrifying and heterotrophic bacteria, 1962, 3303
on-line visualization, 3784
Pseudomonas sp. strain 679-2, 32
soil columns, 3303
Condoms
penetration by viruses, 3180
Conductivity
electroporation, 3292
Conjugated bile acid hydrolase
gene cloning, 3792
Consortia
chlorophenol dechlorination, 2280
Mg^{2+} and methanogens, 862
trichloroethylene degradation, 1886
Contact angles
adhesion of lactobacilli, 1549
Continuous culture
C. acetobutylicum, 3896
cellulose fermentation, 2585
M. aeruginosa toxins, 1321
Continuous-flow columns
quinoline degradation, 2386
Cooling tower water
legionellae, 1394
cop operon
bacterial copper accumulation, 274
Copolyesters
synthesis by methylotrophs, 3574
Copolymers
methanogenic degradation, 1398
production by *E. coli*, 1089
Copper
accumulation by pseudomonads, 274
M. trichosporium methane monooxygenase, 3701
Corn
fumonisin B_1, 233
Corrosion
T. ferrooxidans and pyrite, 1175
Corynebacterium glutamicum
aromatic amino acid synthesis, 781
metabolic engineering, 781
Corynebacterium spp.
dibenzothiophene desulfurization, 911
Coumarin
3,4,5-trichlorocatechol dechlorination, 961
Crassostrea virginica
V. vulnificus, 1506
Creatinase
gene cloning, 3437
Crown gall
A. tumefaciens, 2683
CryIIIC
B. thuringiensis, 2536
cryIVD
cloning in a cyanobacterium, 1650
Cryphonectria parasitica
double-stranded RNA transfer, 2066
Cryptosporidium parvum
oocyst viability, 3488, 3494
removal from sewage, 3514
Crystal violet
bacteriophage recovery, 1159
Cucumber fermentation
L. plantarum competition, 3845
Culturability
E. coli, 3903
enteric bacteria in water, 998
P. syringae, 3908
sheath-forming *L. discophora*, 4001
Cunninghamella elegans
acenaphthene metabolism, 3654
Cutin-degrading enzymes
nonfilamentous bacteria, 2123
Cyanide
anaerobic degradation, 3163
metabolism by *P. fluorescens*, 2022
5-Cyano-2,3-ditolyl tetrazolium chloride
visualization of respirers, 1801
Cyanobacteria
Anabaena microcystins, 2495
central Australia, 3561
cryIVD gene expression, 1650
hot spring microbial mat, 3964
larvicidal activity, 1650
M. aeruginosa toxin, 1321
naphthalene oxidation, 1360
phenanthrene metabolism, 1351
sulfate reduction in mats, 70
Trichodesmium spp., 3122
Cyanogenesis
bromoxynil metabolism, 502
Cyclization activity
cyclodextrin glucanotransferase, 4016
Cyclodextrin glucanotransferase
cyclization, 4016
Cysts
Giardia spp., 1530, 2368

Dab
bacterial colonization, 551
Dairy starter cultures
concentration in beads, 545
Data transformations
bacterial growth rate, 3337
Debromination
polybrominated biphenyl mixture, 3249

Dechlorination
anaerobic granular sludge, 3677
chlorophenols, 1276, 2874
PCBs, 3088
pentachlorophenol, 365
polychlorinated biphenyls, 1110, 4051
tetrachloroethene, 3622
1,2,3-trichlorobenzene, 1636
3,4,5-trichlorocatechol, 961
Deep subsurface bacteria
classification, 3367
Deep-sea hot vents
hyperthermophilic archaea, 3472
Degenerate primers
recA cloning, sequencing, 2674
Dehalogenation
4-chlorobenzoate, 399, 4068
4-chlorobenzoyl coenzyme A, 1385
chlorophenols, 1367
O-demethylation
phenylmethylethers, 925
Denitrification
alkylbenzene degradation, 3395
chloramphenicol inhibition, 1746
estuarine sediment, 303
sensitive assay, 2375
Denitrifying bacteria
competition, 3890
nitrate reductase gene probe, 376
Deoxynivalenol
microbial transformation, 3857
Depolymerization
cotton cellulose, 1266
lignin, 1379
pine waste, 1382
Desert soils
nitrogen-fixing cyanobacteria, 3561
persistence of sludge viruses, 636
Desiccation
bacterial extracellular polysaccharides, 1284
Desulfomonile tiedjei
chlorophenol dehalogenation, 1367
dichlorobenzoate deuteration, 409
sludge bioremediation, 3677
Desulfovibrio desulfuricans
reduction of uranium, 850
Desulfurization
dibenzothiophene, 911
dibenzyldisulfide, 2176
Detection
A. salmonicida, 3816
active yeast cells in dough, 2153
aromatic catabolism intermediates, 2694
Bacillus spp., 2571
bacteria in soil, 2717
bacteria in soils and sediments, 754
Bifidobacterium spp., 4076
Campylobacter spp., 3804
C. botulinum type B, 418
E. amylovora, 3522
E. coli in ground beef, 1764
E. coli virulence factors, 3095
Enterobacteriaceae, 1524, 3187
fish pathogen, 1061
flash sterilization indicator, 717
food-borne pathogens, 4080
genetically engineered microorganisms, 267
human immunodeficiency virus, 3984
L. monocytogenes, 1564, 2827, 4055
lactic acid bacteria, 4064
legionellae in biofilms, 2326
legionellae in water, 2001
M. xenopi in water, 3538
P. solanacearum, 3751, 3759
pediococci in brewing yeast, 713
pJP4, 1271
restriction fragment length polymorphisms, 3429
salmonellae, 3868
shiga-like toxin-producing *E. coli*, 3809
single bacterial cell in soil, 2444
small numbers of bacteria, 754
staphylococcal enterotoxins, 2509, 4083
stressed microorganisms, 3177
V. fischeri in seawater, 942
V. parahaemolyticus, 3419
VAM fungi, 291
Y. enterocolitica in feces, 1024
Detoxification
fluoranthene, 937
phytoalexins, 809
Deuteration
dichlorobenzoate, 409
2,4-Diacetylphloroglucinol
biosynthesis, 3873
isolation from a pseudomonad, 353
4′,6-Diamidino-2-phenylindole
bacterioplankton staining, 2158
Dibenzo-*p*-dioxin
metabolism by a *Sphingomonas* sp., 1005
Dibenzothiophene
desulfurization, 911
Dibenzyldisulfide
reductive desulfurization, 2176
3,5-Dibromo-4-hydroxybenzonitrile
biodegradation, 502
Dichloran–18% glycerol agar
E. amstelodami restriction, 2093
1,3-Dichlorobenzene
1,2,3-trichlorobenzene dechlorination, 1636
Dichlorobenzoate
specific deuteration, 409
Dichlorodiphenyltrichloroethane
biosorption and transport, 2211
1,2-Dichloroethane
biodegradation, 976
2,4-Dichlorophenoxyacetate
amended-soil microbial community, 3941
biodegradation, 314
degradation by bacteria, 1027
degradation plasmid detection, 1271
degradation in soil, 1459
Dictyostelium discoideum
nondegradative pisatin resistance, 2071
Diet
vegan diet and microflora, 3660
Differential interference contrast microscopy
legionellae in biofilms, 2326
Dihomo-γ-linolenic acid
production by *M. alpina*, 2196
1,2-Dihydroxy-4′-chlorobiphenyl
production by *E. coli*, 1385
3,4-Dihydroxyphenylacetate 2,3-dioxygenase
soil *Arthrobacter* strains, 2820
Diluting fluid
sterility testing, 1035
Dilution rate
cellulose fermentation, 2585
Dimethyl ether
methanotrophy inhibition, 2983
2,4-Dinitrophenol
biodegradation, 2928
2,4-Dinitrotoluene
biodegradation, 221
Dinoseb
soil contamination, 1683
Dioxygenase
Arthrobacter spp., 2820
Diphenyl ether
biodegradation, 2744
Dipstick immunoassay
E. coli in ground beef, 1764
Disaccharidases
B. ovatus in mice, 2698
Disinfection
drinking water, 686, 2649
marine fish farms, 4072
medical devices, 3157
novel *N*-halamines, 1240
Pseudomonas spp., 1240
Salmonella spp., 1240
seawater for mariculture, 4072
V. vulnificus in seawater, 1506
Dispersants
ceramic particles, 3130
Dissolved organic carbon
phytoplankton, 2938
Dissolved oxygen tension
hexadecane mineralization, 3072
Diurnal cycles
sulfate reduction by cyanobacteria, 70
Diversity
B. polymyxa, 1894
rhizobia of black locust, 2137
Streptomyces strains, 3932
X. oryzae genetics, 2188
DNA
amplification from soil bacteria, 3413
B. subtilis transformation, 1930
bacterial productivity measure, 3614
conservation among *B. japonicum*, 1878
damage by UV radiation, 2355
extraction from soil, 2458
integration into *L. lactis* genome, 699
polymerase chain reaction, 2292
release by marine nanoflagellates, 3744
restriction endonuclease, 66
Rhizobium strain-specific sequences, 2296
separation from humic substances, 2292
DNA amplification polymorphisms
cultivated mushroom, 2971
DNA probes
A. salmonicida, 1039
E. coli, 3095
L. helveticus, 3429
P. solanacearum, 3751
phage distribution patterns, 2046
V. cholerae non-O1, 2485
DNA sequence
Rhizobium spp., 2296
S. lividans endoglucanase gene, 815
DNase
B. subtilis transformation, 1930
Double-stranded RNA transfer
chestnut blight fungus, 2066
Drinking water
disinfection, 686, 2649
Enterobacteriaceae, 3187
M. xenopi detection, 3538
Dual staining
natural bacterioplankton, 2158

Dutch elm disease
C. ulmi dimorphism, 2505

Echoviruses
glutaraldehyde effects, 3517
EDTA
total degradation, 671
Eicosapentaenoic acid
production by *V. pelagius*, 3777
Elaeagnus spp.
Frankia spp., 1569
Electric fields
biocide efficacy, 3770
Electrochemical water disinfection
novel method, 686
Electrokinetic patterns
effects of heavy metals, 1592
Electron acceptors
selenate-respiring bacteria, 426
Electrophoretic mobility
anaerobic sludge bacteria, 1054
plasmid-cured rhizobia, 2308
Electroporation
gram-negative bacteria, 3292
S. pombe, 1201
Electrotransformation
gram-negative bacteria, 3292
Encapsulated microbial cells
preparation, 727
Endoglucanase
P. ruminicola, 3593
S. lividans, 815
Endolithic bacteria
classification, 3367
Endophytes
Streptomyces strains, 2691
Endosulfan
effect on *A. lipoferum*, 3173
Endotoxin concentrations
airborne bacterium sampling, 3774
Endoxylanase
F. succinogenes, 157
stable defined substrate, 3433
turbidimetric assay, 3433
Enrichment cultures
PCB degradation, 3088
toluene degradation, 3192
3,4,5-trichlorocatechol dechlorination, 961
Enteric bacteria
culturability in natural water, 998
E. herbicola, 2792
Enterobacteria
alimentary tracts of koalas, 1754
Enterobacteriaceae
rapid detection, 1524
Enterobacterial repetitive intergeneric consensus sequences
rhizobial genome fingerprinting, 2180
Enterococci
routine tests, 3027
Enterococcus hirae
bacteriocin production, 3508
Enterococcus seriolicida
removal from seawater, 4072
Enterotoxins
C. perfringens, 326, 1411
detection in foods, 2509
staphylococci, 1067, 4083
V. cholerae non-O1, 2485
Entner-Doudoroff pathway
oxidative glucose metabolism, 3826
Entomopathogenic bacteria
X. luminescens, 1975
Enumeration
actively respiring bacteria, 1801
airborne bacteria, 3774
aquatic plant bacteria, 3374
B. fragilis phages, 2670
B. popilliae, 740
bacteria in soil, 2717
competitive *L. plantarum*, 3845
E. coli in shellfish, 3203
phenanthrene degraders, 2579
thiobacilli in mine tailings, 1904
xerophilic fungi, 2093
Enzyme immunoassays
phaseolinone, 1970
Enzyme-linked immunosorbent assay
fumonisin antibodies, 169
staphylococcal enterotoxins, 2509
Enzymes
A. niger, 2144
agarase, 4060
alginate lyases, 2474
alkene monooxygenase, 3038
amylase, 2490
α-L-arabinofuranosidase, 1082, 1447
aspartate carbamoyltransferase, 3399
B. circulans, 520
B. subtilis transformation, 1930
benzoylformate decarboxylase, 1699
β-1,3-glucanase, 520
C. humicola protease, 1918
catalase, 1190
cellulase, 106, 3240
cellulases and pectinase, 1816
chorismate mutase/prephenate dehydratase, 2592
conjugated bile acid hydrolase, 3792
cutin degradation, 2123
cyclodextrin glucanotransferase, 4016
denitrification inhibition, 1746
2,3-dioxygenase, 2820
disaccharidases, 2698
endoglucanase, 3593
endoxylanases, 157
esterase, 1070
F. succinogenes, 157
F-ATPases, 2287
feruloyl esterases, 3762
glucose metabolism, 3826
glucose oxidase, 1190
α-D-glucosidase, 717
β-glucosidase, 3455
glutamate dehydrogenase, 4032
glutamine synthetase, 3122
hydrogen sulfide:ferric iron oxidoreductase, 431
3-hydroxybutyryl-CoA dehydrogenase, 3297
ileostomy, 111
induction by gentiobiose, 106
isocitrate dehydrogenase, 93
isopenicillin N synthase, 4038
keratinase, 3271
L. discophora iron oxidation, 450
L. lactis proteinases, 78, 3263
L. sake catalase, 832
laccase L1, 1727
Lactobacillus spp., 2005
lignin peroxidase, 3101, 3110
lipase, 174, 3787
lipase gene sequence, 1402
D-malate production, 2854
β-mannanase, 3864
methane monooxygenase, 953, 2231
methanol dehydrogenase, 2302
molybdenum oxidation, 1768
muramidase, 1075
naphthalene degradation, 1874
nitrate reductases, 3586
P. aeruginosa, 174
P. aeruginosa lipase, 677
P. putida, 1699
P. syringae catalases, 2468
pectinolytic enzymes, 578
peroxidase, 1070, 2402
polyethylene degradation, 731
polyethylene glycol degradation, 2164
1,3-propanediol dehydrogenase, 2005
proteases, 1195
pyranose oxidase, 3667
R. leguminosarum, 1816
R. lignosus, 1727
S. cyaneus peroxidase, 916
S. diastaticus, 1447
S. sclerotiorum, 578
S. viridosporus, 1070
serine carboxypeptidases, 2144
soluble methane monooxygenase, 3701
staphylococcal lipase, 2815
Streptomyces spp., 731
T. versicolor laccase, 1496
thermostable neutral protease, 3779
thermostable xylanases, 371
TOL plasmids, 415
toluene dioxygenase, 2643
tryptophanase, 2633
white rot fungi, 1727
xylanase, 3466
yeast protease, 1918
Epidemiology
C. jejuni, 1913
legionellae in water, 2001
Listeria spp., 709
P. pseudomallei, 4011
Epifluorescence microscopy
nano- and picoplankton, 773
Epilithic bacteria
immobilization of plasmids, 1292
Epiphytic bacteria
culturability, 3908
Ergopeptide alkaloids
symbiotic tall fescue, 857
Erwinia amylovora
detection, 3522
Erythritol
synthesis by *L. oenos*, 2271
Escherichia coli
acid hydrolysate fermentation, 1382
bacteriocin determinant expression, 572
catheterized urinary tract, 1500
cel operon expression, 1784
copolymer production, 1089
creatinase gene cloning, 3437
detection, 3809
detection in ground beef, 1764
1,2-dihydroxy-4′-chlorobiphenyl, 1385
enumeration in shellfish, 3203
β-glucosidase gene cloning, 3455
indan hydroxylation, 3407
isopenicillin N synthase gene, 4038
lack of virulence factors, 412
lcnB expression, 572
lipase gene expression, 1776
loss of culturability, 3903
microwave irradiation, 920

oxidative glucose metabolism, 3826
pH or NaCl effect, 2513
pheA mutations, 2592
plasmid DNA concentration, 2266
plasmid transfer, 392
rpoH mutants, 1511
shiga-like toxin, 3809
stimulon induction, 2704
stress proteins, 331
sucrose utilization, 2081
survival in lake water, 2201
tryptophanase gene expression, 2633
virulence factors, 3095
xylan fermentation, 1128
Esterase
S. viridosporus mutants, 1070
Estuaries
H_2-oxidizing microorganism, 3211
V. vulnificus, 3257
Ethanol
Aroclor 1242 dechlorination, 1110
fermentation and fumonisin B_1, 233
production by *C. thermocellum*, 734
production by *E. coli*, 1128
production by *K. oxytoca*, 1128, 2103
production from cellobiose and cellulose, 2103
production from pine waste, 1382
xylan fermentation, 1128
yeast reassimilation, tolerance, 2552
Euprymna scolopes
light organ symbiont, 942
Eurasian watermilfoil
bacterial colonists, 3374
Eurotium amstelodami
colony spreading restriction, 2093
Eutrophic bays
biomass variation, 562
Excystation
C. parvum, 3488
Giardia spp., 1530
Exopolysaccharide
L. casei isolated from cheese, 4086
soil bacterium desiccation, 1284
Explosive-contaminated soil
bioremediation, 3199
Extracellular polymers
sand column conductivity, 1690
Extracellular polysaccharides
B. fibrisolvens, 385

Factor analysis
fungi in domestic interiors, 181
F-ATPases
acid tolerances, 2287
inhibitor sensitivities, 2287
Fatty acid metabolism
poly(3-hydroxyalkanoate) synthesis, 536
Fatty acids
B. fermentans temperature effects, 2338
conversion by *P. putida*, 1847
dihomo-γ-linolenic acid, 2196
gram-negative, nonfermentative bacteria, 2053
L. monocytogenes inhibition, 624
S. griseus temperature effects, 2338
Thermus spp., 1656
Feather-degrading bacteria
keratinase, 3271
Fecal coliforms
damage by sunlight, 1335
enumeration in shellfish, 3203
Fecal microflora
vegan diet effects, 3660
Fecal streptococci
routine tests, 3027
Feces
Y. enterocolitica monitoring, 1024
Feedback inhibition
E. coli pheA mutations, 2592
Fermentable carbohydrate
rat upper gut, 3330
Fermentation
cellulose, 2103, 2585
dry fermented sausage production, 884
fate of fumonisin B_1, 233
L. plantarum competition, 3845
Pinus acid hydrolysates, 1382
sauerkraut, 1477, 1484
T. ethanolicus, 761
wine, 2938
xylan, 1128
Fermented dairy products
Salmonella spp., 2075
Fermented, dry sausage
fate of *E. coli* O157:H7, 2513
Ferrous iron
oxidation by a heterotroph, 1423
Feruloyl esterases
purification and characterization, 3762
Festuca arundinacea Schreber
ergopeptide alkaloids, 857
Fiber
role in the colon, 3330
Fibrobacter succinogenes
endoxylanases 1 and 2, 157
glucose transport, 1115
Field application vectors
foreign gene expression, 655
Filtration
gram-negative, nonfermentative bacteria, 2053
viruses, 747
viruses in air, 900
Fingerprinting
B. japonicum strains, 2832
L. lactis strains, 1772
Fire blight
E. amylovora detection, 3522
Firemaster BP6
reductive debromination, 3249
Fish
A. salmonicida, 3816
B. bassiana effects, 2840
intestinal microflora, 461
P. piscicida, 3316
pathogenic *Vibrio* spp., 3694
pathogen-inhibiting gut microflora, 551
R. salmoninarum detection, 1061
seawater disinfection, 4072
V. cholerae non-O1, 3078
V. pelagius, 3777
V. salmonicida, 1980
Y. ruckeri, 1624
Flagellated protozoa
bacterivory, 3850
Flagellates
effects on competition for NH_4^+, 1962
Flash sterilization
rapid indication of failure, 717
Flavanone glycones and aglycones
3,4,5-trichlorocatechol dechlorination, 961
Flavobacterium spp.
bromoxynil metabolism, 502
Flavonoids
isoliquiritigenin, 1705
Flavonols
VAM fungus hyphal growth, 821
Flocculence
S. cerevisiae cells, 3709
Flow cytometry
antagonistic bacterium visualization, 3784
Y. ruckeri starvation, 1624
Fluoranthene
fungal metabolism, 937
Fluorene-degrading bacteria
isolation and characterization, 2910
Fluorescein immunolabeling
legionellae in biofilms, 2326
Fluorescent pseudomonads
2,4-diacetylphloroglucinol, 353, 3873
ecological competence, 2616
fusarium wilt control, 2978
potato ring rot suppression, 1986
Fluorescent redox probes
actively respiring bacteria, 1801
Fluorescent siderophores
Pseudomonas iron uptake, 630
Fluorogenic vital dyes
C. parvum, 3488
Food
bacterial plasmid extraction, 4080
edible mushroom, 2654
enterohemorrhagic *E. coli*, 1764
N-halamine disinfectants, 1240
L. monocytogenes, 624, 884, 1564, 1924, 2827, 3053, 4055
Listeria sp. identification, 1857
Listeria spp., 2011, 3991
meat spoilage, 2783
microbial growth and inactivation, 2901
microbial succession in cheese, 3448
microwave irradiation, 920
P. acidilactici, 2315
S. typhimurium, 3482
Salmonella spp., 2075
shiga-like toxin-producing *E. coli*, 3809
staphylococcal enterotoxins, 2509, 4083
Staphylococcus spp., 1067
styrene formation, 1577
V. parahaemolyticus, 2679
V. vulnificus, 2771, 2776
vegan diet, 3660
Forage grass
fumonisin, 3196
Form variants
X. luminescens, 1975
Formate
metabolism during methanogenesis, 3323
Fractal morphogenesis
gram-negative rods, 1227
Frankia spp.
broad host range, 1569
Fresh water
adaptation of GEMs, 3630
Freshwater bacteria
leucine and valine uptake, 3638, 3647
Freshwater nanoflagellates
size-selective grazing, 3715
Frozen dough
active yeast cell detection, 2153
Fumonisin
forage grass, 3196
Fumonisins
fate during ethanol fermentation, 233
production by *A. alternata*, 3928

production by *Fusarium* spp., 984
production in *G. fujikuroi*, 2799
reactive antibodies, 169
Fungi
A. bisporus, 2654
A. pullulans, 877
acenaphthene metabolism, 3654
B. epichlöe stroma, 513
C. ulmi dimorphism, 2505
cellulase induction, 106
cotton cellulose depolymerization, 1266
dihomo-γ-linolenic acid, 2196
2,4-dinitrotoluene degradation, 221
domestic interiors, 181
double-stranded RNA transfer, 2066
ergopeptide alkaloids, 857
feruloyl esterases, 3762
fluoranthene metabolism, 937
Fusarium section *Sporotrichiella*, 769
growth-promoting effect, 2654
ice nucleation activity, 2960
lignocellulose degradation, 1121
M. phaseolina, 1970
mitochondrial transmission, 3553
mushrooms, 2654
N. haematococca, 801, 809
pentachlorophenol toxicity, 4048
phaseolinone, 1970
photosensitizer defense, 444
polyketide synthesis inhibition, 1043
polystyrene degradation, 3225
pullulan synthesis, 877
ribosomal gene amplification, 291
Scytalidium thermophilum, 1301
sunflower wilt fungus, 1760
T. versicolor laccase, 1496
volatile metabolites, 2599
yam rot, 758
Fungicides
natamycin, 1064
Fusarium spp.
control with pseudobactin, 2978
fumonisin B_1 production, 984
ice nucleation activity, 2960
toxicity, 769
toxin production, 3233

Galactose
fermentation by *S. cerevisiae*, 1661
Gamma-aminobutyric acid
production by marine bacteria, 237
Gas chromatography-mass spectrometry
M. xenopi detection, 3538
Gas-liquid chromatography
vegan diet and microflora, 3660
Gastric epithelium
adhesion of lactobacilli, 1992
Gastrointestinal microorganisms
B. thetaiotaomicron, 869
rat, 3330
Gene amplification
VAM fungi, 291
Gene expression
bacteriocin determinant in *E. coli*, 572
competitive environments, 655
E. coli rpoH mutants, 1511
field application vectors, 655
Gene mapping
phenol degradation genes, 2531
Gene probes
denitrifying bacteria, 376
methanotrophs, 953
pJP4 detection, 1271
soil microbial populations, 3941
V. fischeri detection, 942
Gene transfer
B. subtilis in soil, 2701
L. lactis nisin gene, 1670
microflora of animals and humans, 1313
tetracycline resistance, 1313
V. salmonicida, 1980
Genetic engineering
aromatic amino acid synthesis, 781
B. pertussis, 208
C. glutamicum, 781
3-chlorobiphenyl-utilizing bacterium, 647
endoglucanase, 3593
pertussis vaccine, 208
Genetic transformation
B. subtilis, 1930
B. thuringiensis, 840
M. echinospora, 1376
plasmid DNA in soil, 3012
Genetically engineered microorganisms
activated sludge microcosms, 3380
adaptation to lake water, 3630
aquatic sediment microcosms, 1249, 1259
baculoviruses, 1583
biofilm colonization, 2954
bioluminescence for detection, 267
control at field sites, 1207
1,2-dihydroxy-4′-chlorobiphenyl production, 1385
field application vectors, 655
horizontal gene transmission, 2701
L. plantarum in silage, 2517
micro- and mesocosm experiments, 252
survival in lake water, 2201
Genetically modified microorganisms
detection in soil, 2444
Genomic fingerprinting
L. lactis strains, 1772
R. meliloti, 2180
soil bacteria, 2180
Gentiobiose
cellulase induction, 106
Gentisate
naphthalene degradation, 1874
Geosmin
P. expansum metabolite, 3170
Germfree mice
B. ovatus, 2698
chondroitin sulfate utilization, 869
Giardia lamblia
cyst degradation in wastes, 2368
Giardia spp.
two excystation methods, 1530
Gibberella fujikuroi
fumonisin production, 2799
glnA
nucleotide sequence, 3165
β-(1,3)(1,6)-D-Glucan
biodegradation, 3347
β-1,3-Glucanase
B. circulans, 520
Glucose
metabolism by *E. coli*, 3826
metabolism by *L. oenos*, 2271
mineralization in sediments, 1554
transport in *F. succinogenes*, 1115
utilization by *B. ruminicola*, 2040
Glucose oxidase
A. niger, 1190
α-D-Glucosidase
flash sterilization indicator, 717
β-Glucosidase
M. bispora, 3455
Glutamate dehydrogenase
R. flavefaciens, 4032
Glutamine synthetase
nucleotide sequence of *glnA*, 3165
Trichodesmium spp., 3122
Glutaraldehyde
antiviral activity, 3517
Glyphosate
biodegradation, 1215
Gold
improved recovery method, 1046
Grain
fungal volatile metabolites, 2599
Gram-negative bacteria
bisphenol degradation, 1823
electrotransformation, 3292
fractal morphogenesis, 1227
identification, 2089
phosphonoacetate metabolism, 1364
Gram-negative, nonfermentative bacteria
differentiation, 2053
isolation from lamb carcasses, 2245
numerical taxonomy, 2245
Granular sludge
bacterial hydrophobicities, 1054
pentachlorophenol dechlorination, 365
Great Bay estuary
V. vulnificus, 3257
Ground beef
enterohemorrhagic *E. coli*, 1764
shiga-like toxin-producing *E. coli*, 3809
Ground fish meat
styrene formation, 1577
Groundwater
chlorobenzene degradation, 1719
hydrophobic pollutants, 2211
Growth
A. bisporus mycelium, 2654
A. magnetotacticum, 1102
bacteria under pressure, 1789
estimation in anaerobes, 2660
fractal morphogenesis, 1227
fungi on cereal grains, 2599
GEMs in lake water, 3630
L. plantarum in silage, 2517
M. luteus on pyridine, 3423
mathematical model, 2901, 3337
microbes and food processing, 2901
P. mendocina, 3150
P. (Bacteroides) ruminicola, 1617
pseudomonad and *p*-xylene, 2723
rumen bacteria, 99
S. typhimurium, 3482
thermophilic fungi in compost, 1301
Guar gum
B. ovatus growth, 1534, 1541

N-Halamine
efficacy of disinfection, 1240
Haloanaerobacter chitinovorans
solar saltern isolate, 260
Halophiles
solar saltern bacterium, 260
Hard-shelled clams
male-specific bacteriophages, 1371
microbial accumulation, 826
Heat shock
L. monocytogenes, 2096

Heat shock proteins
synthesis in rhizobia, 2846
Heat susceptibility
mycobacteria, 1869
Heat-stable enterotoxin
V. cholerae non-O1, 2485
Heavy metals
electrokinetic properties, 1592
uptake by *S. cerevisiae*, 3883
Hemolysis
Listeria spp. on agar, 434
Hepatotoxins
Anabaena strains, 2495
Herbicides
biodegradation, 502
2,4-D, 3941
soil contamination, 1683, 3941
weed biocontrol, 2260
Herring
intestinal microflora, 461
Heterologous proteins
E. coli rpoH mutants, 1511
Heteropolysaccharides
A. viscosus, 3501
Heterotrophic bacteria
air-handling systems, 3914
competition with nitrifiers, 1962, 3303
dissolved organic carbon, 2938
ferrous iron oxidation, 1423
marine bacterium identification, 21
trichloroethylene degradation, 3067
Heterotrophic nanoflagellates
P. imperforata, 593
Hexachlorobenzene
biosorption and transport, 2211
reductive dechlorination, 1057
Hexadecane
adhesion of lactobacilli, 1549
mineralization, 3072
Hexadecyltrimethylammonium chloride
bacterial metabolism, 3083
Holding regimens
herring intestinal microflora, 461
Homokaryons
A. bisporus, 3553
Host range
Frankia spp., 1569
Hot spring microbial mats
uncultivated cyanobacteria, 3964
Human colon
tetracycline resistance gene, 1313
Human immunodeficiency virus type 1
barrier materials, 747
detection in wastewater, 3984
filtration sizes, 747
presence in wastewater, 3984
Human intestinal cells
adhesion of *L. acidophilus*, 2034
Humic substances
fecal coliform damage, 1335
Hydrocarbons
oil spill turnover, 243
Hydrodynamic effects
chemotaxis assays, 2737
Hydrogen
metabolism during methanogenesis, 3323
tetrachloroethene dechlorination, 3622
Hydrogen peroxide
bacteriophage recovery, 1159
E. coli culturability, 3903
production by *P. chrysosporium*, 3667
Hydrogen sulfide
degradation by a xanthomonad, 1183
Hydrogen sulfide:ferric iron oxidoreductase
iron-oxidizing bacteria, 431
Hydrogen-oxidizing microorganisms
estuary in New Hampshire, 3211
Hydrophobicity
adhesion of lactobacilli, 1549
anaerobic sludge bacteria, 1054
lactobacilli and gastric epithelium, 1992
S. cerevisiae flocculence, 3709
transport of pollutants, 2211
Hydrostatic pressure
bacterial growth, 1789
Hydrothermal vents
methylotrophic symbionts, 3799
3-Hydroxybutyryl-coenzyme A dehydrogenase
C. beijerinckii, 3297
Hydroxyhydroquinone
sequential transhydroxylations, 1861
Hydroxynorvaline
S. cerevisiae threonine overproduction, 1670
Hyperbaric pressure
bacterial growth, 1789
Hyperreiterated DNA regions
B. japonicum, 1878
Hypersaline environments
solar saltern bacterium, 260

iap
identification of listeriae, 2625
Ice nucleation activity
Fusarium spp., 2960
insect cold tolerance, 2711
Identification
aeromonads, 1940
B. japonicum genes, 1490
Bifidobacterium spp., 4076
Brucella spp., 2099
deep subsurface bacteria, 3367
enterococci, 3027
fecal streptococci, 3027
gram-negative aerobes, 2089
individual prokaryotic cells, 3007
infectious hematopoietic necrosis virus, 6
Listeria spp., 709, 765, 1857, 2011, 2625
marine bacteria, 21
mycoplasmas, 2606
pathogenic *Vibrio* spp., 3694
ribotyping, 1940
sulfate-reducing bacteria, 614, 3542
Ileal pouch
bacteria and enzymes, 111
Ileostomy
bacteria and enzymes, 111
Image-analyzed fluorescence microscopy
picoplankton measurement, 584
Immobilized microorganisms
environmental applications, 727
glyphosate degradation, 1215
L. lactis in alginate beads, 1429
P. chrysosporium, 1740
preparation, 727
Immunoblotting
staphylococcal enterotoxins, 4083
Immunocapture
thermophilic sulfate reducers, 1244
Immunogold labeling
legionellae in biofilms, 2326
methanol dehydrogenase, 2302
Immunolocalization
methanol dehydrogenase, 2302
Immunomagnetic separation
V. parahaemolyticus, 2679
IncP plasmids
transfer to *T. thiooxidans*, 429
Indan
stereospecific hydroxylation, 3407
Indicator organisms
accumulation by clams, 826
B. fragilis phages, 2670
E. coli, 3903
Indole-3-acetic acid
production by *P. syringae*, 1780
Infectious hematopoietic necrosis virus
rapid identification, 6
Injured microorganisms
heat-injured *Listeria* spp., 14, 3177
Inland silverside fish
B. bassiana effects, 2840
Inocula
biofilm colonization, 2954
VAM fungi, 229
Inoculants
2,4-D degradation, 1459
silage, 3047
Inorganic membrane filters
study of nano- and picoplankton, 773
Insecticidal protein gene
B. thuringiensis, 642, 840, 2536, 3921
Insecticides
Doom, 740
Insects
B. thuringiensis toxins, 3343
genetically engineered baculoviruses, 1583
ice-nucleating-active bacteria, 2711
mosquitocidal toxins, 905
X. luminescens, 1975
Intergeneric mating
3-chlorobiphenyl-utilizing bacterium, 647
Intestinal microorganisms
B. ovatus, 2698
Bifidobacterium spp., 4076
cellulolytic *Clostridium* sp., 1645
herring larvae, 461
Intra-amoebal growth
L. pneumophila, 2420
Ionophore resistance
P. (*Bacteroides*) *ruminicola*, 1617
Iron
binding by *B. licheniformis*, 405
microbial reduction, 439
organic compound biodegradation, 38
oxidation by a heterotroph, 1423
oxidation by *L. discophora*, 450
redox cycling by *A. magnetotacticum*, 1102
reduction, 3211
toluene degradation, 786
uptake by a *Pseudomonas* sp., 630
uptake by soil bacteria, 119
Iron-containing proteins
binding by *A. hydrophila*, 42
Iron-oxidizing bacteria
hydrogen sulfide:ferric iron oxidoreductase, 431
IS*946*
L. lactis DNA integration, 699
IS*981*
lactococcal integration vector, 476

Isobutyrate
biodegradation, 1435
isomerization by an anaerobe, 1435
Isocitrate dehydrogenase
T. thermophilus, 93
Isolation procedures
cesium-accumulating bacteria, 1019
chlorophenol dechlorinators, 1276, 2874
enterococci, 3027
epilithic bacterium plasmids, 1292
fecal streptococci, 3027
fluorene-degrading bacteria, 2910
P. acidilactici from food, 2315
P. pseudomallei from soil, 4011
Rhizobium DNA sequences, 2296
sheath-forming *L. discophora*, 4001
thermophilic sulfate reducers, 1244
V. vulnificus from shellfish, 737
versicolorin A conversion gene, 3522
Y. pseudotuberculosis, 2688
Isoliquiritigenin
soybean root exudate, 1705
Isopenicillin N synthase
gene expression in *E. coli*, 4038

Jacobine
biotransformation, 2559
Jenseniin G
heat-stable bacteriocin, 215
Juvenile hormone esterase gene
genetically engineered baculoviruses, 1583

Kanamycin nucleotidyltransferase
expression in *T. thermophilus*, 421
katA
cloning and expression, 832
Keratinase
B. licheniformis, 3271
Killer yeasts
P. kluyveri distribution, 990
Kinetics
cotton cellulose depolymerization, 1266
2,4-D degradation, 1027, 1459
glucose and lignocellulose mineralization, 1554
microwave irradiation of *E. coli*, 920
P. chrysosporium respiration, 1740
Klebsiella oxytoca
ethanol production, 2103
xylan fermentation, 1128
Klebsiella pneumoniae
chloramine resistance, 2649, 2918
nitrile metabolism, 27
Koalas
alimentary tract enterobacteria, 1754

Laccase
R. lignosus, 1727
T. versicolor, 1496
Lactic acid bacteria
bacteriocin extraction, 3355
L-(+)- isomer production, 4064
Lacticin 481
lactococcal bacteriocins, 279
Lactobacilli
adhesion to hexadecane, 1549
Lactobacillus acidophilus
adherence to intestinal cells, 2034
Lactobacillus brevis
1,3-propanediol dehydrogenase, 2005
Lactobacillus buchneri
1,3-propanediol dehydrogenase, 2005
Lactobacillus casei
exopolysaccharide production, 4086
Lactobacillus delbrueckii subsp. *bulgaricus*
glnA nucleotide sequence, 3165
Lactobacillus gasseri
plasmid transduction, 187
Lactobacillus helveticus
bacteriophages, 1011
DNA probe, 3429
Lactobacillus plantarum
conjugated bile acid hydrolase, 3792
growth, survival in silage, 2517
pH homeostasis, 891
Lactobacillus sake
catalase, 832
Lactobacillus spp.
adhesion to gastric epithelium, 1992
Lactococci
engineered nisins, 3683
gene stabilization, 476
integration vector, 476
peptidase localization, 285
Lactococcin A
molecular analysis of gene, 1952
Lactococcus lactis
nisin gene transfer, 1670
nisin-producing sauerkraut isolates, 1484
phage antigens, 2479
proteinase genes, 3142
proteinase overproduction, 78
rapid genomic fingerprinting, 1772
release from alginate beads, 1429
Lactococcus lactis subsp. *cremoris*
cell wall-associated proteinase, 3263
concentration in beads, 545
envelope-associated proteinase, 750
lactose plasmid integration, 125
relatedness to subsp. *lactis*, 4045
Lactococcus lactis subsp. *lactis*
bacteriocin lacticin 481, 279
heterologous DNA integration, 699
lactococcin A gene cluster, 1952
lactose plasmid integration, 125
nisin-producing sauerkraut isolates, 1477
phage insensitivity gene, 3283
recA cloning, sequencing, 2674
relatedness to subsp. *cremoris*, 4045
Lactoferrin binding
A. hydrophila, 42
Lactose plasmids
L. lactis subspecies, 125
Lakes
adaptation of GEMs, 3630
dissolved organic carbon, 2938
E. coli survival, 2201
heterotrophic bacteria, 2938
nutrient limitation, 150
Lamb carcasses
gram-negative, nonfermentative, nonmotile bacteria, 2245
Lantibiotics
nisin biosynthesis, 3730
subtilin biosynthesis, 132
Larvicides
cyanobacteria, 1650
lcnB
expression in *E. coli*, 572
Leaching
L. ferrooxidans, 85
pyrites, 1853
sulfide ore material, 600
Legionella pneumophila
detection in biofilms, 2326
genetic characterization, 706
physiology and susceptibility, 2420
Legionellae
cooling tower water, 1394
Leguminous trees
Acacia albida, 2415
lemA
conservation in *P. syringae*, 1440
Lemoine tailings
enumeration of thiobacilli, 1904
Leptospirillum ferrooxidans
evaluation for leaching, 85
Leptothrix discophora
enzymatic iron oxidation, 450
manganese oxidation, 4001
sheath-forming strain, 4001
Letters to the Editor
acetate oxidation by Fe(III) reducers, 3205
bactericidal UV light, 778
L. monocytogenes oligonucleotide probe, 777
[^{3}H]Leucine
incorporation into freshwater bacteria, 3638, 3647
Leuconostoc mesenteroides
sauerkraut starter culture, 1484
Leuconostoc oenos
erythritol biosynthesis, 2271
glucose metabolism, 2271
Leuconostoc paramesenteroides
amylase-sensitive bacteriocin, 143
Ligase chain reaction
discrimination of listeriae, 3443
Light
E. coli culturability, 3903
fecal coliform damage, 1335
M. aeruginosa toxin, 1321
rhizobium oxygen uptake, 3830
Light-dependent degradation
nitrophenols, 690
Light microscopy
microbial succession in cheese, 3448
Light organ symbionts
V. fischeri, 942
Lignin
biodegradation, 3217
Lignin peroxidase
biological pulp bleaching, 3101
new assay, 3110
Lignin peroxidase gene
P. chrysosporium, 1379
Ligninolytic enzymes
P. chrysosporium, 1379, 2402
phenanthrene degradation, 1832
T. versicolor, 1496
Lignocellulose
biodegradation, 1121
mineralization in sediments, 1554
Lignopolystyrene graft copolymers
biodegradation, 3225
Limanda limanda
bacterial colonization, 551
Linear alkylbenzene sulfonate
oxidation, 1308
Lipase
gene cloning, 3787
gene cloning, expression, sequence, 1402
gene expression in *E. coli*, 1776
P. aeruginosa, 174, 677
spectrophotometric assay, 2815

Lipolytic bacteria
pseudomonad from milk, 1776
Lipopolysaccharide
S. typhimurium mutants, 1786
Liposomes
methanogen lipid extracts, 2894
Lipoxygenase inhibitors
C. ulmi dimorphism, 2505
Listeria innocua
repair of heat injury, 14
virulence determination, 3991
Listeria monocytogenes
cadmium resistance, 3183
control by pediococci, 3053
detection in food, 1564, 2827, 4055
discrimination from other listeriae, 3443
inhibition by fatty acids, 624
intracellular solutes, 3959
monoclonal antibody, 1924
nonradioactive probe, 4055
oligonucleotide probe (letter), 777
osmoregulation, 3959
proton motive force, 3312
proton motive force depletion, 2255
repair of heat injury, 14
resuscitation, 3177
sausage production, 884
thermotolerance, 2096
virulence determination, 3991
virulence gene regulator, 765
Listeria spp.
bacteriocin, 3508
bacteriophages, 296
differentiation by PFGE, 709
discrimination, 3443
hemolytic phenotype expression, 434
identification, 765, 1857, 2625
Long-term starvation
quinoline degradation induction, 2386
Low-molecular-weight RNA
bacterioplankton dynamics, 3387
Luminous bacteria
Persian Gulf seawater, 2338
V. fischeri, 942
lux
detection in soil, 2444
pollutant bioavailability assay, 1839
V. fischeri detection, 942
luxAB
Y. enterocolitica monitoring, 1024
Lyases
D-malate production, 2854
Lyophilization
botulinum toxin type A, 3426
Lysimeters
prevention of microbial activity, 1
Lysine
transport by strain SR, 969
Lysogeny
B. japonicum, 3360
Xenorhabdus spp., 3032
Lysozyme
release of proteinases, 3263

Maackiain
Nectria pathogenesis, 801, 809
Macrophomina phaseolina
toxin estimation, 1970
Magnesium
thermophilic methanogens, 862
Magnetite
synthesis by *A. magnetotacticum*, 1102
D-Malate
production from maleate, 2854
Maleate
D-malate production, 2854
Malolactic fermentation
erythritol biosynthesis, 2271
Malolactic-deficient bacteria
competitive growth, 3845
Maltooligosaccharides
ruminal bacteria and starch, 48
Manganese
lignin biodegradation, 2402
microbial oxidation, 4001
microbial reduction, 439
peroxidase biosynthesis, 2402
Manganic chelates
production by *T. versicolor*, 1496
β-Mannanase
"*C. saccharolyticum*,", 3864
Mariculture
seawater disinfection, 4072
Marine bacteria
dynamics after oil spill, 243
eicosapentaenoic acid, 3777
gamma-aminobutyric acid, 237
identification, 21
inhibition of larval settlement, 2111
starvation survival response, 2432
V. salmonicida, 1980
Vibrio response to starvation, 55
Marine environment
decay of viruses, 3721
E. coli plasmid DNA, 2266
hyperthermophilic archaea, 3472
luminous bacteria, 2338
P. imperforata, 593
phosphorus cycling, 3744
picoplankton measurement, 584
protozoan grazing, 2381, 3850
Vibrio starvation, 201
viruses, 2965
Marine nanoflagellates
dissolved DNA release, 3744
Mating system
B. epichlöe, 513
Meat
P. fluorescens adhesion, 2783
Media
airborne bacterium sampling, 3774
B. popilliae quantitation, 740
creatinase test plates, 3437
enterobacteria from koalas, 1754
L. monocytogenes detection, 4055
Listeria repair-enrichment broth, 14
M. luteus on pyridine, 3423
natamycin as fungicide, 1064
P. pseudomallei isolation, 4011
V. vulnificus isolation, 737
Medical devices
disinfection, 3157
Melanin
synthesis in *V. cholerae*, 2861
Membrane filtration
sterility testing, 1035
Membranes
strain SR lysine, arginine transport, 969
Menidia beryllina
B. bassiana effects, 2840
Mercenaria mercenaria
male-specific bacteriophages, 1371
microbial accumulation, 826
meta fission pathway
P. cepacia MB2, 2501
Metabolism
acenaphthene, 3654
aromatic amino acid synthesis, 781
benzoate, 696
C. glutamicum engineering, 781
dibenzo-*p*-dioxin, 1005
E. coli and glucose, 3826
fluoranthene, 937
fluorene, 2910
hexadecyltrimethylammonium chloride, 3083
L. oenos and glucose, 2271
3-methylindole, 2667
nitriles, 27
P. fluorescens and cyanide, 2022
phosphonoacetate, 1364
phytoalexins, 801
toxic pyrrolizidine alkaloids, 2730
vinyl chloride, 1220
Metal binding
B. subtilis, 3837
Metal-based reagents
disinfection, 3157
Methane
consumption, temperature effects, 2758
Methane monooxygenase
colorimetric plate assay, 2231
methanotroph gene probe, 953
Methanobacterium thermoautotrophicum
syntrophic consortium, 346
Methanobacterium thermoformicicum
syntrophic consortium, 346
Methanogens
acetate catabolism, 3323
acetate utilization comparison, 703
cockroach hindgut, 2565
electrophoretic mobilities, 1054
hydrophobicities, 1054
liposomes from lipid extracts, 2894
magnesium effect, 862
major osmotic solutes, 2438
3-methylindole metabolism, 2667
Methanohalophilus spp.
major osmotic solutes, 2438
Methanol
copolyester synthesis, 3574
Methanol dehydrogenase
immunolocalization, 2302
Methanol-utilizing bacteria
pyrroloquinoline quinone, 3970
Methanosarcina spp.
methanogenesis from acetate, 3323
Methanothrix soehngenii
acetate utilization, 703
Methanothrix spp.
methanogenesis from acetate, 3323
Methanotrophs
chemotaxis assays, 2737
gene probe, 953
inhibitors, 2983
temperature and methane consumption, 2758
trichloroethylene degradation, 1886
Methyl fluoride
methanotrophy inhibition, 2983
Methylated protein
bacterial hydrolysis, 1374
2-Methylbenzoate
biodegradation, 194
3-Methylindole
mineralization, 2667
Methylobacterium extorquens
copolyester synthesis, 3574

Methylocystis spp.
trichloroethylene degradation, 3067
Methylomonas rubra
temperature and methane consumption, 2758
Methylosinus trichosporium
chemotaxis assays, 2737
methane monooxygenase, 3701
Methylotrophs
aspartokinase gene cloning, 2806
copolyester synthesis, 3574
1,2-dichloroethane degradation, 976
hydrothermal vent mussel, 3799
methanol dehydrogenase, 2302
Microbial mats
hot springs, 3964
Microbial succession
Bethlehem St. Nectaire cheese, 3448
Microbispora bispora
β-glucosidase, 3455
Microcapillary assay methods
hydrodynamic effects, 2737
Micrococcus luteus
riboflavin production, 3423
Microcosms
biofilm colonization, 2954
genetically engineered microorganisms, 1249, 1259, 2954, 3380
tetrachloroethene dechlorination, 1392
Microcystins
Anabaena spp., 2495
Microcystis aeruginosa
toxin production, 1321
MICRO-ID LISTERIA system
evaluation, 2011
Micromonospora echinospora
transformation, 1376
Microwave irradiation
E. coli destruction, 920
Milk
L. lactis proteinases, 78
L. monocytogenes, 2096
Mineralization
benzene, 2663
diphenyl ether, 2744
glucose in sediments, 1554
hexadecane, 3072
lignin, 3217
lignocellulose in sediments, 1554
3-methylindole, 2667
organic chemicals, 38
pentachlorophenol, 2879
sulfanilic acid, 3598
sulfonated azo dyes, 3598
toluene metabolites, 496
trichloroethylene, 3067
Mitochondrial transmission
A. bisporus, 3553
Mixed human and swine wastes
Giardia cyst degradation, 2368
Mixed wastes
poliovirus inactivation, 2016
Modeling
bacterial growth rate, 3337
microbial growth, inactivation, 2901
mixed chemostat cultures, 1466
S. typhimurium growth, 3482
virus transport in soils, 1609
Molecular size distribution
cotton cellulose depolymerization, 1266
Mollusc larva settlement
gamma-aminobutyric acid, 237
Molybdenum
oxidation by *T. ferrooxidans*, 1768
Monensin
Fibrobacter glucose transport, 1115
resistant *P. ruminicola*, 1617
Monochloramine
coliphage inactivation, 3136
Monoclonal antibodies
Enterobacteriaceae, 1524, 3187
identification of *Vibrio* spp., 3694
L. monocytogenes, 1924
P. acidilactici, 2315
P. aeruginosa lipase study, 677
salmonellae, 3868
Monoglycerides
L. monocytogenes inhibition, 624
Monooxygenase reaction
nitrotoluenes, 2643
Montmorillonite
B. subtilis transformation, 1930
Mortierella alpina
dihomo-γ-linolenic acid production, 2196
Mosquitocidal proteins
expression by using pHT3101, 507
expression in *C. crescentus*, 905
Mosquitoes
larvicidal cyanobacterium, 1650
Muddy tidal flat community
benthic bacterivory, 2426
Muramidase
C. acetobutylicum, 1075
Mushroom cultivation
A. bisporus, 3553
alginate-based delivery system, 3060
DNA amplification polymorphisms, 2971
growth-promoting thermophiles, 2654
thermophilic fungi and compost, 1301
Mussels
methylotrophic symbionts, 3799
Mycelial pellets
respiration kinetics, 1740
Mycobacterium aurum
vinyl chloride metabolism, 1220
Mycobacterium spp.
heat susceptibility, 1869
Mycobacterium xenopi
detection in water, 3538
Mycoplasmas
identification, 2606
Mycotoxins
A. alternata, 1043
deoxynivalenol, 3857
fumonisin production, 984, 2799, 3196, 3928
Fusarium section *Sporotrichiella*, 769
microbial transformation, 3857
occurrence in beets, 3233
zearalenone, 3233
Myriophyllum spicatum L.
bacterial colonists, 3374

NAG-ST
prevalence among *V. cholerae* non-O1, 2485
Nanoplankton
inorganic membrane filters, 773
Naphthalene
bioavailability assessment, 1839
biodegradation, 1874
differential bioavailability, 1142
oxidation by a cyanobacterium, 1360
Natamycin
agar medium fungicide, 1064
Nectria haematococca
maackiain metabolism genes, 801
phytoalexin detoxification, 809
Neocallimastix spp.
feruloyl esterases, 3762
Neurotoxins
gene cloning, 2345
nifH
Rhizobium sp. phylogenetics, 1809
nifL
A. vinelandii mutants, 1711
NIH shift
naphthalene oxidation, 1360
Nisin
activity against *S. typhimurium*, 1786
biosynthesis, 3730
conjugal transfer of gene, 1670
L. lactis, 1484
L. lactis subsp. *lactis*, 1477
L. monocytogenes proton motive force, 2255
lactococcal expression system, 3683
proton motive force dissipation, 2463
sauerkraut fermentation, 1477, 1484
Nitrapyrin
oxidation by *N. europaea*, 2321
Nitrate
barley rhizosphere, 2375
preferred electron acceptor, 426
Nitrate reductases
gene probe, 376
X. maltophilia, 3586
Nitrate reduction
estuarine sediment, 303
Nitrifying bacteria
competition with heterotrophs, 1962, 3303
estuarine sediment, 303
nitrapyrin oxidation, 2321
Nitriles
metabolism by *K. pneumoniae*, 27
Nitrite
barley rhizosphere, 2375
Nitroaromatic compounds
monooxygenation, 2643
reduction by a *Streptomyces* sp., 1945
substrates for TOL enzymes, 415
Nitrogen cycling
Trichodesmium spp., 3122
Nitrogen fertilizer
ergopeptide alkaloids, 857
Nitrogen fixation
A. vinelandii nifL mutants, 1711
African leguminous trees, 2415
Australian cyanobacteria, 3561
B. japonicum, 607
B. japonicum gene cloning, 1490
black locust, 2137
Frankia spp., 1569
nodulation-defective rhizobia, 1050
Nitrogen limitation
P. resinovorans, 744
Nitrophenol
photodegradation, 690
Nitrosomonas europaea
nitrapyrin oxidation, 2321
Nitrotoluenes
monooxygenation, 2643
Nitrous oxide reduction
T. denitrificans, 1601

nod
R. meliloti chemotaxis, 1153
Nodulation
B. japonicum lysogeny, 3360
R. leguminosarum mutants, 1050
restriction of *Bradyrhizobium* strains, 720
Nonculturable *E. coli*
plasmid DNA concentration, 2266
Nonfilamentous bacteria
cutin-degrading enzymes, 2123
Nonindigenous bacteria
effects on bacterioplankton, 3387
Nonmotile gram-negative bacteria
numerical taxonomy, 2245
Nonobligate bacterial predators
Pseudomonas sp. strain 679-2, 32
North Sea
thermophilic sulfate reducers, 1244
^{13}C nuclear magnetic resonance
erythritol biosynthesis, 2271
Nucleotide sequence
aspartokinase gene, 2806
4-chlorobenzoate dehalogenation genes, 4068
citrate synthase gene, 335
cryIIIB2, 3921
β-glucosidase gene, 3455
glutamine synthetase gene, 3165
L. sake katA, 832
lactococcin A gene cluster, 1952
lcnB, bacteriocin determinant, 572
lipase gene, 1402
β-mannanase gene, 3864
neurotoxin gene, 2345
P. acidilactici pediocin plasmid, 2360
protease inhibitor gene, 525
recA, 2674
tryptophanase gene, 2633
V. parahaemolyticus trh, 2449
Numerical taxonomy
bacteria from lamb carcasses, 2245
Nutrient cycling
marine microbial food chain, 593
Nutrient enrichment
glucose and lignocellulose mineralization, 1554
Nutrient limitation
bacterioplankton, 150
S. cerevisiae flocculence, 3709
Nutritional assays
C. bifermentans, 1195
C. botulinum and arginine, 2334
C. truncatum, 2260

Octadecane
biodegradation, 3276
O-demethylation
phenylmethylethers, 925
Oil field waters
thermophilic sulfate reducers, 1244
Oil fields
sulfate-reducing bacteria, 3542
Oil spills
bacterium-hydrocarbon dynamics, 243
Oil tar-contaminated soil
phenanthrene degradation, 3117
Oleic acid
microbial oxidation, 2116
Oligonucleotide probes
bacterioplankton staining, 2158
Bifidobacterium spp., 4076
individual prokaryotic cells, 3007
L. monocytogenes (letter), 777
V. parahaemolyticus, 3419
Oligosaccharides
cellulase induction, 106
o-Nitrophenol-β-D-galactopyranoside–4-methylumbelliferyl-β-D-glucuronide
E. coli detection, 3095
Oocysts
C. parvum, 3488
removal from sewage, 3514
Opportunistic pathogens
A. hydrophila, 42
Oral lactic acid bacteria
F-ATPases, 2287
Organic acid chelators
lignin biodegradation, 2402
Organic compounds
biodegradation, 38
effect on PCE dechlorination, 1392
P. putida acyloin formation, 1699
rhizobium oxygen uptake, 3830
Organic matter
2,4-D degradation, 1459
Organophosphonate
utilization by *P. fluorescens*, 2993
Organotin compounds
antifungal activity, 758
tolerant bacteria, 3410
Oscillatoria spp.
naphthalene oxidation, 1360
Osmoregulation
L. monocytogenes, 3959
S. aureus proline transport, 471
Osmotic solutes
Methanohalophilus sp., 2438
Overlayer technique
phenanthrene degraders, 2579
Ovine ruminal fluid
pyrrolizidine alkaloid metabolism, 2730
Oxalic acid
production by *P. bilaii*, 1451
Oxidation
arsenical pyrite, 1046
elemental sulfur to sulfite, 3767
ferrous iron, 1423
linear alkylbenzene sulfonate, 1308
manganese, 4001
molybdenum, 1768
naphthalene, 1360
nitrotoluenes, 2643
pyrites, 1853
Oxygen
fecal coliform damage, 1335
uptake by rhizobia, 3830
Oysters
V. parahaemolyticus, 3419
V. vulnificus, 1506, 2771, 2776
Ozonated seawater
fish pathogen survival, 4072

P protein
E. herbicola, 2792
Paracoccus denitrificans
copolyester synthesis, 3574
Paraphysomonas imperforata
low-temperature effects, 593
Pasteurella multocida
survival in aerosols, 932
Pasteurella piscicida
characterization of strains, 3316
removal from seawater, 4072
Pasteurization
Aroclor 1242 dechlorination, 1110
Pasteurized milk
L. monocytogenes, 2096
Pathogens
A. salmonicida, 3816
building-related illness, 3914
C. jejuni, 1913
Campylobacter gastroenteritis, 664
Campylobacter spp., 3804
catheter-associated bacteriuria, 1500
E. coli O157:H7, 2513
E. seriolicida, 4072
enterohemorrhagic *E. coli*, 1764
fish, 3316, 4072
food-associated outbreaks, 4080
Giardia lamblia, 2368
heat-susceptible mycobacteria, 1869
human immunodeficiency virus, 3984
L. monocytogenes, 1924, 2096, 2827, 3053, 3177, 3183, 3443
L. pneumophila, 706, 2420
legionellae, 2001
legionellae in biofilms, 2326
Listeria spp., 765, 2625, 3991
M. xenopi, 3538
P. multocida, 932
P. piscicida, 3316, 4072
P. pseudomallei, 4011
pen-cultured coho salmon, 1061
poliovirus type 1, 2016
Salmonella spp., 2075
salmonellae, 3868
Staphylococcus spp., 1067
V. anguillarum, 551, 4072
V. cholerae non-O1, 3078, 3567
V. parahaemolyticus, 2449
V. salmonicida, 1980
V. vulnificus, 737, 1506, 2771, 2776, 3257
Vibrio spp., 3694
Y. ruckeri, 1624
pCI829
L. lactis abi gene, 3283
pD10
mobilization by epilithic bacteria, 1292
Peat
H_2S degrader, 1183
Pectinolytic enzymes
R. leguminosarum, 1816
Pediocin
antilisterial activity, 884
P. acidilactici, 2315
production by *P. acidilactici*, 2360
Pediococcus acidilactici
bacteriocin, 3312
isolation from foods, 2315
L. monocytogenes control, 3053
pediocin PA-1 production, 2360
silage inoculant, 3047
Pediococcus spp.
detection in brewing yeast, 713
Pelagic bacteria
protozoan grazing, 3715
Pelobacter massiliensis
sequential transhydroxylations, 1861
Pelobacter venetianus
polyethylene glycol degradation, 2164
Penicillium bilaii
phosphate solubilization, 1451
Penicillium expansum
volatile metabolite, 3170
Penicillium purpurogenum
cellulase induction, 106

Pentachlorophenol
anaerobic dechlorination, 365
mineralization, 2879
toxicity to fungi, 4048
Pentachlorophenol hydroxylase
bromoxynil degradation, 502
Peptidases
lactococci, 285
Peptide synthesis
serine carboxypeptidases, 2144
Peptidoglycan
Clostridium muramidase, 1075
Perchloroethylene
transformation to ethane, 1996
Periplaneta americana
hindgut metabolic activities, 2565
Peroxidase
P. chrysosporium, 2402
S. cyaneus, 916
S. viridosporus mutants, 1070
Pertussis toxin
overproduction by *B. pertussis*, 208
Petroleum-contaminated sites
phenanthrene degradation, 2579
pGIF3
thiostrepton resistance, 895
pH
bacteria in polluted soil, 4026
cellulose fermentation, 2585
effect on *E. coli* O157:H7, 2513
fecal coliform damage, 1335
Fibrobacter glucose transport, 1115
homeostasis and *L. plantarum*, 891
organic compound biodegradation, 38
Phanerochaete chrysosporium
azo dye degradation, 2397
azo dye mineralization, 3598, 3605
cellobiohydrolase genes, 2168
2,4-dinitrotoluene degradation, 221
lignin degradation, 2402
lignin peroxidase gene, 1379
lignocellulose degradation, 1121
peroxidase biosynthesis, 2402
phenanthrene degradation, 1832, 3000, 3117
pyranose oxidase, 3667
respiration kinetics of pellets, 1740
TNT degradation, 3199
xylanase, 3466
Phaseolinone
enzyme immunoassay, 1970
pheA
E. coli K-12 mutants, 2592
E. herbicola, 2792
Phenanthrene
biodegradation, 2579, 3000, 3117
metabolism by a cyanobacterium, 1351
oxidative degradation, 1832
Phenazine antibiotics
fluorescent pseudomonads, 2616
Phenol degradation genes
B. stearothermophilus, 2531
Phenotype
B. polymyxa diversity, 1894
L. sake katA expression, 832
lactococcal integration vector, 476
Listeria hemolysis, 434
P. kluyveri killer toxin, 990
P. piscicida, 3316
Phenylalanine
C. glutamicum engineering, 781
E. herbicola, 2792
Phenylmethylethers
O-demethylation, 925
ϕ197
phage antigen characterization, 2479
ϕadh
plasmid transduction, 187
Phloroglucinol
transhydroxylation, 1861
Phosphate availability
organic compound biodegradation, 38
Phospholipid ester-linked fatty acids
biomass in eutrophic bays, 562
Phospholipid fatty acid pattern
polluted soil, 4026
Phosphonoacetate
metabolism, 1364
Phosphorus
marine biogeochemical cycling, 3744
Photosensitivity
fecal coliforms, 1335
Photosensitizers
fungal defense, 444
Photosynthetic bacteria
C. aurantiacus, 2490
Photosynthetic rhizobia
oxygen uptake, 3830
Phototrophic bacteria
nitrophenol degradation, 690
R. capsulatus, 690
pHT3101
mosquitocidal protein expression, 507
Phylogenetic analysis
Rhizobium sp. strain Or 191, 1809
Phytoalexins
Dutch elm disease fungus, 2505
Nectria pathogenesis, 801, 809
resistant *D. discoideum*, 2071
Phytopathogens
A. alternata, 3928
A. tumefaciens, 2683
bacterial speck of tomato, 274
C. ulmi dimorphism, 2505
Cercospora spp., 444
chestnut blight fungus, 2066
copper accumulation, 274
E. amylovora, 3522
fusarium wilt, 2978
G. fujikuroi, 2799
M. phaseolina toxin, 1970
N. haematococca, 801, 809
P. expansum, 3170
P. syringae, 1440, 1780, 2468
potato ring rot, 1986
potato scab, 3932
S. sclerotiorum, 578
soil rot of sweet potato, 532
sunflower wilt fungus, 1760
X. oryzae, 2188
yam rot fungi, 758
Phytoplankton
dissolved organic carbon, 2938
Phytotoxins
phaseolinone, 1970
Pichia carsonii
styrene production, 1577
Pichia kluyveri
killer phenotypes, 990
Pichia stipitis
ethanol reassimilation, tolerance, 2552
Picoplankton
cell size measurement, 584
inorganic membrane filters, 773
Picric acid
catabolism by *R. erythropolis*, 2933
Pig intestinal tract
cellulolytic *Clostridium* sp., 1645
Pigmentation
A. pullulans, 877
Pimaricin
agar medium fungicide, 1064
Pinus sp. acid hydrolysates
fermentation, 1382
Pisatin
resistant *D. discoideum*, 2071
Pisatin demethylase
Nectria pathogenesis, 801
pJP4
detection, 1271
Plankton
cell size measurement, 584
inorganic membrane filters, 773
Plasmid DNA
persistence in soil, 3012
Plasmid transduction
bacteriophage ϕadh, 187
Plasmid transfer
E. coli, 392
epilithic bacteria, 1292
IncP plasmids, 429
T. thiooxidans, 429
Plasmids
A. tumefaciens, 2683
cadmium resistance, 3183
4-chlorobenzoate dehalogenation, 399
detection methods, 1271
direct extraction from food, 4080
E. coli in marine microcosms, 2266
epilithic bacteria, 1292
ethanol production, 2103
integration in *L. lactis*, 125
L. monocytogenes, 3183
lcnB expression in *E. coli*, 572
loss by GEMs, 3630
mosquitocidal protein expression, 507
pediocin PA-1 production, 2360
plasmid-cured rhizobia, 2308
pSRQ11, 2360
T. thermophilus vector, 421
thiostrepton resistance, 895
V. salmonicida pathogenicity, 1980
Plecoglossus altivelis
V. cholerae non-O1, 3078
Pleurotus ostreatus
lignocellulose degradation, 1121
Ploidy level
S. cerevisiae, 948
Polioviruses
glutaraldehyde effects, 3517
inactivation in mixed wastes, 2016
Polluted soil
effects on soil bacteria, 4026
Poly(3-hydroxyalkanoate)
methanogenic degradation, 1398
synthesis by *P. putida*, 536
Poly-(3-hydroxybutyrate-co-3-hydroxyvalerate)
production by *A. vinelandii*, 2866
production by *E. coli*, 1089
synthesis by methylotrophs, 3574
Poly-β-hydroxyalkanoate
P. resinovorans, 744
production by *E. coli*, 1089
Polybrominated biphenyl mixture
reductive debromination, 3249

Polychlorinated biphenyls
anaerobic dechlorination, 1110
congener dechlorination, 1057
dechlorination, 1057, 4051
microbial dechlorination, 3088
Polycyclic aromatic hydrocarbons
biodegradation, 2219
fluoranthene metabolism, 937
phenanthrene metabolism, 1351, 3000
Polyethylene glycol
biodegradation, 2164
S. pombe electroporation, 1201
Polyethylene-degrading enzymes
Streptomyces spp., 731
Polyketides
synthesis by *A. alternata*, 1043
Polymerase chain reaction
A. salmonicida, 3816
bacteria in soils and sediments, 754
bacterial plasmid amplification, 4080
bacterium detection, enumeration, 2717
Brucella spp., 2099
C. botulinum detection, 418
Campylobacter spp., 3804
DNA in humic sediments, 2292
E. amylovora detection, 3522
human immunodeficiency virus, 3984
L. lactis fingerprinting, 1772
L. monocytogenes, 1564, 2827
Listeria spp., 2625
P. solanacearum, 3751, 3759
pJP4 detection, 1271
recA cloning, sequencing, 2674
rhizobial genome fingerprinting, 2180
Rhizobium DNA sequences, 2296
rRNA gene amplification, 3417
shiga-like toxin-producing *E. coli*, 3809
soil bacterium DNA amplification, 3413
VAM fungi, 291
Polysaccharides
A. viscosus, 3501
B. fibrisolvens, 385
B. japonicum bacteroids, 607
chondroitin sulfate utilization, 869
pullulan synthesis, 877
R. leguminosarum Al tolerance, 1095
soil bacterium desiccation, 1284
Population structure
X. oryzae, 2188
Potassium tellurite
Listeria hemolysis, 434
Potato ring rot
biological suppression, 1986
Potato scab
Streptomyces strains, 3932
Poultry
C. jejuni control, 1913
Campylobacter gastroenteritis, 664
Preservatives
bacteriocin, 143, 2315
jenseniin G, 215
silver ion, 3834
Pressure
effects on bacterial growth, 1789
marine barophile CNPT-3, 2432
Prevotella ruminicola
endoglucanase properties, 3593
ionophore resistance, 1617
propionate production, 2331
prfA
Listeria identification, 765
Productivity
bacteria in stream beds, 3614
freshwater bacteria, 3638, 3647
Prokaryotic cells
identification, 3007
Proline transport
S. aureus, 471
Proline-containing peptides
degradation in the rumen, 3954
1,3-Propanediol dehydrogenase
Lactobacillus spp., 2005
Propionate
production by *P. ruminicola*, 2331
Propionate-oxidizing bacteria
enrichment, 346
Propionibacterium jensenii
heat-stable bacteriocin, 215
Protease inhibitors
B. brevis, 525
Proteases
C. bifermentans, 1195
C. humicola, 1918
Protein engineering
nisins from lactococci, 3683
Proteinases
L. lactis, 78, 750, 3142, 3263
Proteins
B. ovatus grown on guar gum, 1534, 1541
B. thuringiensis, 642, 3921
degradation in aquatic systems, 1374
E. coli rpoH mutants, 1511
E. coli stress proteins, 331
E. herbicola, 2792
L. discophora iron oxidation, 450
listeriaphages, 296
nisin biosynthesis, 3730
Vibrio response to starvation, 55
Proteolysis
L. lactis, 3142
P. furiosus, 1134
Protocatechuate
aromatic compound catabolism, 2694
Proton motive force
C. sporogenes, 2463
depletion in *L. monocytogenes*, 2255
influence on metal binding, 3837
L. monocytogenes, 3312
Protoplasts
M. echinospora, 1376
Protozoan grazing
effect on frequency of dividing cells, 2381
effects on competition for NH_4^+, 1962
enteric bacteria, 998
freshwater nanoflagellates, 3715
marine coastal system, 3850
muddy tidal flat community, 2426
Pseudobactin 358
fusarium wilt control, 2978
Pseudomonas aeruginosa
biofilms, 1629, 3770
cel operon expression, 1784
lipase, 174, 677
pyochelin synthesis, 2886
Pseudomonas cepacia
growth on 3-chloro-2-methylbenzoate, 2501
2-methylbenzoate degradation, 194
sunflower wilt suppression, 1760
survival in soil, 2458
trichloroethylene degradation, 3977
Pseudomonas fluorescens
adhesion to meat, 2783
cyanide metabolism, 2022
lipase gene, 1402
organophosphonate utilization, 2993
Pseudomonas glumae
lipase gene cloning, 3787
Pseudomonas mendocina
chemostat cultures, 3150
Pseudomonas pickettii
chlorophenol degradation, 1276
Pseudomonas pseudomallei
isolation from soil, 4011
Pseudomonas putida
acyloin formation, 1699
cis fatty acid conversion, 1847
creatinase gene cloning, 3437
poly(3-hydroxyalkanoates), 536
substrate toxicity, 1847
Pseudomonas resinovorans
poly-β-hydroxyalkanoate, 744
Pseudomonas solanacearum
specific DNA probe, 3751
strain classification, 3759
Pseudomonas spp.
competition and survival in soil, 32
copper accumulation, 274
desiccation and exopolysaccharide production, 1284
2,4-diacetylphloroglucinol, 3873
engineered catabolic pathways, 3380
gamma-aminobutyric acid, 237
growth with *p*-xylene, 2723
N-halamine disinfectants, 1240
iron uptake, 630
octadecane degradation, 3276
pentachlorophenol mineralization, 2879
quaternary ammonium salt metabolism, 3083
substituted benzene degradation, 2237
triglyceride degradation, 1776
Pseudomonas stutzeri
selenate, selenite reduction, 4042
Pseudomonas syringae
auxin production, 1780
culturability, 3908
lemA gene conservation, 1440
periplasmic catalases, 2468
Pseudomonas testosteroni
biphenyl degradation, 485
chlorobenzoate transformation, 485
chlorobiphenyl degradation, 485
Psychrophiles
C. humicola protease, 1918
enhanced substrate requirement, 359
marine barophile CNPT-3, 2432
P. imperforata, 593
Psychrotrophic bacteria
lipolytic pseudomonad, 1776
Pullulan
synthesis by *Aureobasidium* spp., 877
Pulsed-field gel electrophoresis
Listeria differentiation, 709
Pyochelin
synthesis by *P. aeruginosa*, 2886
Pyranose oxidase
P. chrysosporium, 3667
Pyridine
M. luteus growth, 3423
Pyrites
oxidation by *T. ferrooxidans*, 1175
T. ferrooxidans, 1853

Pyritic mine tailings
enumeration of thiobacilli, 1904
Pyrococcus furiosus
proteolytic activity regulation, 1134
Pyrococcus spp.
comparative physiology, 3472
Pyrrolizidine alkaloids
biotransformation, 2559
metabolism in ruminal fluid, 2730
Pyrroloquinoline quinone
methanol-utilizing bacteria, 3970
Pyruvate
L. plantarum pH homeostasis, 891

Quinoline
degradation by subsurface bacteria, 2386

Random amplified polymorphic DNA
button mushroom, 2971
Rapid in situ hybridization
16S rRNA segments, 2571
Rapid NFT system
marine bacterium identification, 21
Recalcitrant high-molecular-weight material
microbial metabolism inhibitor, 2030
Reciprocal isomerization
butyrate and isobutyrate, 1435
Redox cycling
A. magnetotacticum and iron, 1102
Redox dye
actively respiring bacteria, 1801
Redox potential
fungal photosensitizer defense, 444
Reductive debromination
polybrominated biphenyl mixture, 3249
Reductive dechlorination
anaerobic granular sludge, 3677
chlorophenols, 2280
hexachlorobenzene, 1057
PCB congener, 1057
tetrachloroethene, 1392, 1996, 3622
1,2,3-trichlorobenzene, 1636
Reductive dehalogenation
chlorophenols, 1367
D. tiedjei in D_2O, 409
Reductive desulfurization
dibenzyldisulfide, 2176
Refractile endospores
C. thermosaccharolyticum, 1797
Relatedness
B. japonicum strains, 2832
L. lactis subspecies, 4045
S. ipomoea strains, 532
Renibacterium salmoninarum
detection from cultured salmon, 1061
Repair-enrichment broth
heat-injured *Listeria* spp., 14
Repetitive DNA elements
X. oryzae, 2188
Repetitive extragenic palindromic sequences
rhizobial genome fingerprinting, 2180
Replication
male-specific bacteriophages, 1371
Resistance
D. discoideum and pisatin, 2071
K. pneumoniae and chloramines, 2649, 2918
L. monocytogenes and cadmium, 3183
P. ruminicola and ionophores, 1617
peptides and ruminal degradation, 3954
pseudomonads and copper, 274
R. leguminosarum and Al, 1095
S. incarnatus and thiostrepton, 895
Respiration
fluorescent probes, 1801
P. chrysosporium pellets, 1740
Respiratory disease
L. pneumophila serogroup 1, 706
Restriction endonucleases
R. flavefaciens, 66
Restriction fragment length polymorphism
L. helveticus, 3429
L. pneumophila serogroup 1, 706
Reverse sample genome probing
sulfate-reducing bacteria, 3542
Rhamnolipids
octadecane degradation, 3276
Rhizobia
oxygen uptake, 3830
symbiosis with black locust, 2137
Rhizobium leguminosarum
aluminum tolerance, 1095
cellulases and pectinase, 1816
nodulation-defective mutants, 1050
Rhizobium meliloti
chemotaxis, 1153
genome fingerprinting, 2180
Rhizobium spp.
heat and cold shock proteins, 2846
plasmid-cured rhizobia, 2308
strain Or 191 phylogenetics, 1809
strain-specific DNA sequences, 2296
Rhizosphere
B. japonicum gene cloning, 1490
B. polymyxa diversity, 1894
bacterial iron uptake, 119
fluorescent pseudomonads, 2616
nitrate, nitrite, 2375
Streptomyces strains, 2691
Rhodobacter capsulatus
nitrophenol photodegradation, 690
Rhodococcus erythropolis
2,4-dinitrophenol degradation, 2928
picric acid catabolism, 2933
Rhodococcus spp.
naphthalene degradation, 1874
Rhodopseudomonas palustris
anaerobic benzoate degradation, 696
Riboflavin
production by *M. luteus*, 3423
Ribotyping
aeromonad differentiation, 1940
Rifamycin B-producing bacteria
screening assay for mutants, 403
Rigidoporus lignosus
laccase L1, 1727
Rivers
biofilm inhibitor, 2030
Rj4 allele
nodulation restriction, 720
Robinia pseudoacacia L.
diversity among rhizobia, 2137
rpoH
E. coli mutants, 1511
rRNA
differential gene amplification, 3417
Vibrio starvation, 201
16S rRNA
bacterioplankton staining, 2158
L. monocytogenes detection, 2827
mycoplasma identification, 2606
rapid in situ hybridization, 2571
Rhizobium sp. phylogenetics, 1809
Rumen fluid
bacterial growth rates, 99
pyrrolizidine alkaloid metabolism, 2730
Ruminal fermentation
moderation by protozoa, 2410
Ruminal microorganisms
arginine and lysine transport, 969
B. ruminicola, 2040
cellulose fermentation, 2585
comparative growth rates, 99
DNA restriction endonuclease, 66
endoxylanases, 157
Fibrobacter glucose transport, 1115
interaction with starch, 48
ionophore resistance, 1617
jacobine biotransformation, 2559
peptide degradation, 3954
propionate production, 2331
pyrrolizidine alkaloid metabolism, 2730
Ruminococcus flavefaciens
cellulose fermentation, 2585
DNA restriction endonuclease, 66
glutamate dehydrogenase, 4032

Saccharomyces cerevisiae
activity in frozen dough, 2153
flocculence, 3709
pediococcus detection, 713
ploidy level increases, 948
spent sulfite liquor, 1661
strontium uptake, 3883
threonine overproduction, 1670
Saccharomyces pombe
electropore size, 1201
Salicylate
bioavailability assessment, 1839
naphthalene degradation, 1874
Salinity
L. monocytogenes, 3959
Y. ruckeri survival, 1624
Salmonella spp.
acid adaptation, 2075
N-halamine disinfectants, 1240
monoclonal antibodies, 3868
survival in cheese, 2075
Salmonella typhimurium
cel operon expression, 1784
growth on beef, 3482
nisin effects, 1786
Sand columns
bacterial transport, 2523
polymers and conductivity, 1690
Sap
copper accumulation, 274
Saturated hydraulic conductivity
bacteria in sand columns, 2523
sand columns and polymers, 1690
Sauerkraut fermentation
nisin-producing *L. lactis*, 1477
paired starter culture system, 1484
Sausage
L. monocytogenes, 884
Scanning electron microscopy
microbial succession in cheese, 3448
nano- and picoplankton, 773
Sclerotinia sclerotiorum
pectinolytic enzymes, 578
sunflower wilt suppression, 1760
Scophthalmus maximus (L.)
bacterial colonization, 551
V. pelagius, 3777

Scytalidium thermophilum
growth in mushroom compost, 1301
Seawater
B. licheniformis survival, 252
disinfection, 4072
hexadecane mineralization, 3072
marine virus decay, 3721
surfactant-degrading bacteria, 1308
tributyltin-tolerant bacteria, 3410
V. fischeri detection, 942
V. vulnificus and disinfection, 1506
Sediments
bacterial productivity, 3614
biomass in eutrophic bays, 562
3-chloro-4-hydroxybenzoate, 3580
degradation of contaminants, 3020
detection of bacteria, 754
DNA separation from humic substances, 2292
glucose and lignocellulose mineralization, 1554
microcosms for studying GEMs, 1249
nitrate reduction, 303
polybrominated biphenyl debromination, 3249
polychlorobiphenyl dechlorination, 1110
Selenate-respiring bacteria
preferred electron acceptor, 426
Selenium
selenate, selenite reduction, 4042
Self-similar colony morphogenesis
gram-negative rods, 1227
Semiautomated electrophoresis system
staphylococcal enterotoxins, 4083
Senecio jacobaea
toxic pyrrolizidine alkaloids, 2730
Sepiolid squid
light organ symbiont, 942
Sequential transhydroxylations
P. massiliensis, 1861
Serial culture passages
adhesion of lactobacilli, 1549
Serine carboxypeptidases
A. niger, 2144
Sessile marine invertebrates
larval settlement inhibition, 2111
Sewage sludge
anaerobic membrane bioreactors, 2751
aryl reductive dechlorination, 3677
B. fragilis phages, 2670
C. parvum oocyst removal, 3514
genetically engineered microorganisms, 3380
persistence of virus in soils, 636
Sheared-root inocula
VAM fungi, 229
Sheathed iron bacteria
L. discophora, 4001
Shellfish
E. coli, 3203
male-specific bacteriophages, 1371
microbial accumulation, 826
pathogenic *Vibrio* spp., 3694
V. vulnificus isolation, 737
Shiga-like toxin-producing *E. coli*
detection, 3809
Sick building syndrome
heterotrophic bacteria, 3914
Siderophores
P. aeruginosa, 2886
soil and rhizosphere bacteria, 119
Silage
L. plantarum survival, 2517
Silage inoculant
P. acidilactici, 3047
Silver ion
preservative use, 3834
Site-directed mutagenesis
thermostable neutral protease, 3779
Sludge-amended soils
persistence of viruses, 636
Sludge granules
chlorophenol degradation, 2131
Sodium chloride
effect on *E. coli* O157:H7, 2513
L. monocytogenes, 3959
Soil
alkaline dust pollution, 4026
Arthrobacter dioxygenase, 2820
B. japonicum gene cloning, 1490
B. polymyxa diversity, 1894
B. popilliae, 740
B. subtilis, 2701
bacterial desiccation, 1284
bacterial DNA amplification, 3413
2,4-D amendment, 3941
2,4-D degradation, 1459
denitrifying bacteria, 3890
detection of a single cell, 2444
detection of bacteria, 754, 2717
DNA extraction, 2458
herbicide removal, 1683
methane consumption, 2758
microbial gene probes, 3941
naphthalene availability, 1142
nitrogen-fixing cyanobacteria, 3561
P. pseudomallei, 4011
persistence of sludge viruses, 636
phenazine antibiotics, 2616
plasmid DNA persistence, 3012
Pseudomonas sp. strain 679-2, 32
siderophores and iron uptake, 119
Soil solution samplers
prevention of microbial activity, 1
Soil water
ergopeptide alkaloids, 857
Solar salterns
H. chitinovorans, 260
Solid-state fermentation
lignocellulose degradation, 1121
Soluble methane monooxygenase
colorimetric plate assay, 2231
M. trichosporium mutants, 3701
Solvents
C. acetobutylicum, 3896
C. thermosaccharolyticum, 1797
production by *C. pasteurianum*, 1233
Soybean
nodulation restriction, 720
Soybean nodules
B. japonicum polysaccharides, 607
Soybean root exudate
isoliquiritigenin, 1705
Spanish dry-cured hams
enterotoxigenic staphylococci, 1067
Specific growth rates
nutrient-limited bacterioplankton, 150
Spent sulfite liquor
S. cerevisiae, 1661
Sphingomonas spp.
dibenzo-*p*-dioxin metabolism, 1005
diphenyl ether degradation, 2744
Spirochete-like organisms
hot spring microbial mat, 3964
Spores
B. subtilis, 2355
C. thermosaccharolyticum, 1797
UV radiation dosimetry, 2355
VAM fungus hyphal growth, 821
Sporotrichiella
toxicity, 769
Sporulation
C. perfringens, 1411
C. truncatum, 2260
Staining
natural bacterioplankton, 2158
Staphylococcal coagglutination
rapid identification of IHNV, 6
Staphylococcal enterotoxins
detection in food, 2509, 4083
Staphylococcal lipase
spectrophotometric assay, 2815
Staphylococcus aureus
proline transport systems, 471
Staphylococcus spp.
enterotoxigenicity, 1067
Starch
hydrolysis by *C. perfringens*, 326
ruminal bacterium interaction, 48
Starvation survival response
marine barophile CNPT-3, 2432
Vibrio sp. strain S14, 55
Starvation-survival
marine *Vibrio* spp., 201
Y. ruckeri, 1624
Sterility testing
universal diluting fluid, 1035
Sterilization
air and viruses, 900
rapid indication of failure, 717
Sterol
D. discoideum membrane, 2071
Stimulons
E. coli, 2704
Stream bed sediments
bacterial productivity, 3614
Streptomyces chromofuscus
azo dye mineralization, 3598
Streptomyces clavuligerus
isopenicillin N synthase gene, 4038
Streptomyces cyaneus
intracellular peroxidase, 916
Streptomyces diastaticus
α-L-arabinofuranosidases, 1447
Streptomyces griseus
temperature and fatty acids, 2338
Streptomyces incarnatus
thiostrepton resistance, 895
Streptomyces ipomoea
DNA relatedness, 532
Streptomyces lividans
endoglucanase, 815
Streptomyces reticuli
cellulase, 3240
Streptomyces spp.
azo dye degradation, 3605
diversity among strains, 3932
endophytic strains, 2691
nitroaromatic compound reduction, 1945
polyethylene-degrading enzyme, 731
Streptomyces thermoviolaceus
thermostable xylanases, 371
Streptomyces viridosporus
peroxidase-deficient mutants, 1070
Stress proteins
E. coli, 331

Stressed microorganisms
Vibrio sp. protein synthesis, 55
Stromal development
B. epichlöe, 513
Strontium
uptake by *S. cerevisiae*, 3883
Styrene
production by *P. carsonii*, 1577
Subgingival bacteria
study of surfaces, 1326
Substituted benzenes
biodegradation, 2237
Substrate toxicity
P. putida protection, 1847
Substrates
bacterial growth in the cold, 359
endoxylanases, 3433
nitroaromatics, 415
TOL plasmid enzymes, 415
Subsurface bacteria
classification, 3367
quinoline degradation, 2386
Subtilin
biosynthesis gene analysis, 132
Subtraction hybridization
Rhizobium DNA sequences, 2296
Sucrose
utilization by *E. coli*, 2081
Sugar beets
Fusarium toxin, 3233
Sulfanilic acid
mineralization, 3598
Sulfate
3,4,5-trichlorocatechol dechlorination, 961
Sulfate reduction
biofilms, 1164
oxic conditions, 70
toluene degradation, 786, 794, 3192
xylene degradation, 794
Sulfate-reducing bacteria
identification in biofilms, 614
identification in oil fields, 3542
North Sea oil field waters, 1244
recovery from oil field waters, 1244
reduction of uranium, 850
Sulfide minerals
bacterial leaching, 600
Sulfide-oxidizing bacteria
biofilms, 1164
T. denitrificans, 1601
Sulfur
oxidation to sulfite, 3767
Sunflower wilt fungus
suppression by *P. cepacia*, 1760
Surfaces
bacterial colonization, 2954
bacterial migration, 1500
marine invertebrate settlement, 2111
subgingival bacteria, 1326
Surface-sterilized roots
Streptomyces strains, 2691
Surfactants
octadecane degradation, 3276
oxidation, 1308
Survival
B. licheniformis in seawater, 252
C. parvum oocysts, 3488, 3494
E. coli in lake water, 2201
E. coli O157:H7, 2513
fluorescent pseudomonads, 2616
genetically engineered microorganisms, 1259
L. plantarum in silage, 2517
male-specific bacteriophages, 1371
P. cepacia in soil, 2458
P. multocida in aerosols, 932
Pseudomonas sp. in soil, 32
Salmonella spp. in cheese, 2075
starvation of *Vibrio* sp., 55
V. vulnificus in oysters, 2771
Y. ruckeri and starvation, 1624
Sweet potato
pathogen DNA relatedness, 532
Swine
bioaerosol sampling in barns, 2543
Symbiobacterium thermophilum
tryptophanase gene, 2633
Symbiosis
methylotrophs and mussels, 3799
plasmid-cured rhizobia, 2308
Symbiotic bacteria
S. thermophilum, 2633
Synergism
B. thuringiensis toxins, 3343
Syntrophic consortia
enrichment of propionate oxidizers, 346

Tall fescue
ergopeptide alkaloids, 857
Tannin-protein complex-degrading bacteria
isolation and enumeration, 1754
Tansy ragwort
toxic pyrrolizidine alkaloids, 2730
Taxonomy
L. discophora, 4001
TECRA kit
staphylococcal enterotoxins in foods, 2509
Temperature
bacterial growth in the cold, 359
C. perfringens toxin production, 1411
cel expression, 1784
column bioleaching, 600
double-stranded RNA transfer, 2066
E. coli stimulon induction, 2704
effects on methane consumption, 2758
fatty acid branching, unsaturation, 2338
heat-susceptible mycobacteria, 1869
insect cold tolerance, 2711
L. monocytogenes, 2096
P. imperforata, 593
protein synthesis in rhizobia, 2846
starch hydrolysis, 326
Thermus fatty acids, 1656
V. vulnificus survival, 2771
Temperature function integration
S. typhimurium growth, 3482
Tetrachloroethene
reductive dechlorination, 1392, 3622
transformation to ethane, 1996
Tetracycline resistance
natural transfer of gene, 1313
Tetrahydrofolate
anaerobic O-demethylation, 925
Thermal injury
repair in *Listeria* spp., 14
Thermoanaerobacter ethanolicus
fermentation reproducibility, 761
Thermophiles
archaea from deep-sea vents, 3472
aspartokinase gene cloning, 2806
B. thermoleovorans, 2393
C. aurantiacus, 2490
cultivation methods, 3949
methanogenesis from acetate, 3323
Mg^{2+} and methanogens, 862
mushroom growth promotion, 2654
P. furiosus, 1134
recovery from oil field waters, 1244
S. thermophilum, 2633
Scytalidium thermophilum, 1301
T. neopolitana, 3949
T. thermophilus, 93
Thermus fatty acids, 1656
Thermostable direct hemolysin-related hemolysin gene
sequence variation, 2449
Thermostable neutral protease
site-directed mutagenesis, 3779
Thermotoga neopolitana
cultivation methods, 3949
Thermotolerance
L. monocytogenes, 2096
Thermus spp.
fatty acids, 1656
Thermus thermophilus
isocitrate dehydrogenase gene, 93
plasmid cloning vectors, 421
Thiobacilli
enumeration in mine tailings, 1904
Thiobacillus denitrificans
acetylene effect, 1601
Thiobacillus ferrooxidans
anaerobic growth, 2227
molybdenum oxidation, 1768
pyrite leaching, 1853
pyrite oxidation, 1175
Thiobacillus thiooxidans
elemental sulfur oxidation, 3767
IncP plasmid transfer, 429
Thiostrepton
S. incarnatus resistance, 895
Threonine
overproduction by *S. cerevisiae*, 1670
[^{3}H]Thymidine
anaerobe growth estimation, 2660
bacterial productivity, 3614
Tn*916*
horizontal gene transmission, 2701
Tn*5271*
chloroaromatic degradation, 314
TOL plasmids
upper-pathway enzymes, 415
Tolerance
aluminum and *R. leguminosarum*, 1095
F-ATPases and acid, 2287
insects and subzero temperatures, 2711
organotin compounds, 3410
P. stipitis and ethanol, 2552
S. cerevisiae and acetate, 1661
Toluene
biodegradation, 786, 794
degradation by-products, 3192
metabolites during degradation, 496
Toluene dioxygenase
nitrotoluene oxidation, 2643
p-Toluidine
aromatic compound catabolism, 2694
Total nucleic acid
immunodeficiency virus detection, 3984
Total polar lipid extracts
liposome formation, 2894
Toxicity
Fusarium section *Sporotrichiella*, 769
heavy metal ions, 1592
pentachlorophenol, 4048
trichlorophenol, 557

Toxins
B. thuringiensis, 3343
botulinum toxin type A, 3426
cercosporin, 444
ergopeptide alkaloids, 857
Fusarium spp. from beets, 3233
M. aeruginosa, 1321
P. kluyveri, 990
pertussis toxin vaccine, 208
phaseolinone, 1970
pyrrolizidine alkaloids, 2730
Trametes (*Coriolus*) *versicolor*
biological pulp bleaching, 3101
laccase, 1496
manganic chelate production, 1496
Transcription
L. lactis proteinase genes, 3142
Transduction
B. thuringiensis, 840
L. gasseri plasmid, 187
Transformation
benzocyclobutene, 3404
chlorobenzoate, 485
deoxynivalenol, 3857
jacobine, 2559
nitroaromatic compounds, 1945
tetrachloroethene, 1996
toluene, 496
trichlorophenols, 557
vomitoxin, 3857
o-xylene, 496
Transition metals
P. aeruginosa pyochelin synthesis, 2886
Transport mechanisms
arginine, lysine, and strain SR, 969
B. ruminicola and glucose, 2040
bacteria in sand columns, 2523
glucose and *F. succinogenes*, 1115
hydrophobic pollutants, 2211
S. aureus and proline, 471
viruses in unsaturated soils, 1609
Transposons
B. subtilis, 2701
Treponema denticola
aspartate carbamoyltransferase, 3399
trh
sequence variation, 2449
n-Tributyltin acetate
antifungal activity, 758
Tributyltin-tolerant bacteria
seawater, 3410
1,2,3-Trichlorobenzene
dechlorination, 1636
3,4,5-Trichlorocatechol
dechlorination, 961
Trichloroethylene
biodegradation, 3067
degradation by a methanotroph, 1886
degradation by *P. cepacia*, 3977
gene probe for methanotrophs, 953
2,4,6-Trichlorophenol
biodegradation, 1276
Trichlorophenols
transformation and toxicity, 557
Trichodesmium spp.
glutamine synthetase, 3122
Triglycerides
degradation by a pseudomonad, 1776
2,4,6-Trinitrotoluene
bioremediation in soil, 3199
tRNA consensus primers
P. solanacearum detection, 3759
Tryptophan operon
cloning from *A. hydrophila*, 1031
Tryptophanase gene
expression in *E. coli*, 2633
Turbidimetric assay
endoxylanases, 3433
Turbot
bacterial colonization, 551
V. pelagius, 3777
Turkey summer sausage
L. monocytogenes, 3053
Two-phase systems
Pseudomonas strain growth, 2723
Tyrosine
C. glutamicum engineering, 781

Ultrapure-water systems
evaluation, 724
Universal diluting fluid
sterility testing, 1035
Unsaturated soil
virus transport, 1609
Upflow anaerobic sludge blanket reactors
Mg^{2+} and methanogens, 862
Uptake mechanisms
iron, 119
oxygen and rhizobia, 3830
Pseudomonas sp. and iron, 630
S. cerevisiae and strontium, 3883
soil and rhizosphere bacteria, 119
Uranium
reduction by *D. desulfuricans*, 850
Urinary tract infections
bacterial migration, 1500
UV irradiation
long-term dosimetry in Antarctica, 2355
S. cerevisiae ploidy, 948
UV light
bactericidal effectiveness (letter), 778
V. vulnificus and disinfection, 1506
UV-oxidizable carbon
ultrapure-water systems, 724

Vaccines
pertussis toxin, 208
[^{3}H]Valine
incorporation into freshwater bacteria, 3638, 3647
Vectors
field application, 655
foreign gene expression, 655
L. lactis DNA integration, 699
lactococci, 476
mosquitocidal protein expression, 507
T. thermophilus plasmid, 421
Vegan diet
human fecal microflora, 3660
Veillonella alcalescens
culture with *C. testosteroni*, 1466
Versicolorin A
conversion to sterigmatocystin, 3522
Vesicular-arbuscular mycorrhizal fungi
flavonol and hyphal growth, 821
ribosomal gene amplification, 291
sheared-root inocula, 229
Viability
C. parvum oocysts, 3488, 3494
Vibrio anguillarum
fish colonization, 551
removal from seawater, 4072
Vibrio cholerae
ayu fish in Japan, 3078
heat-stable enterotoxin, 2485
melanin synthesis, 2861
Vibrio cholerae non-O1
cell surface characteristics, 3567
Vibrio fischeri
detection in Hawaiian seawater, 942
Vibrio parahaemolyticus
immunomagnetic separation, 2679
oligonucleotide probe, 3419
trh sequence variation, 2449
Vibrio pelagius
eicosapentaenoic acid, 3777
Vibrio salmonicida
plasmids and pathogenicity, 1980
Vibrio spp.
alginate lyases, 2474
identification of pathogens, 3694
protein synthesis during starvation, 55
starvation and recovery, 201
Vibrio vulnificus
isolation medium, 737
replication in oysters, 1506
seasonal incidence, 3257
virulence, 2776
Vinyl chloride
metabolism by *M. aurum*, 1220
VIRTUS
virus transport modeling, 1609
Virulence
Listeria spp., 765, 3991
N. haematococca, 809
V. cholerae, 2861
V. salmonicida, 1980
V. vulnificus, 2776
Virulence factors
A. salmonicida, 3816
E. coli, 412, 3095
Viruses
Chesapeake Bay, 2965
condom penetration, 3180
decay in seawater, 3721
genetically engineered baculoviruses, 1583
glutaraldehyde effects, 3517
inactivation in mixed wastes, 2016
model of transport in soil, 1609
persistence in amended soils, 636
rapid identification, 6
removal from air, 900
staphylococcal coagglutination, 6
Vitamin B_{12}
ethanol production, 734
P. ruminicola propionate production, 2331
PCB dechlorination, 1057
Volatile metabolites
fungi grown on grains, 2599
Vomitoxin
microbial transformation, 3857

Warm-season grasses
fungal endophyte, 513
Waste stabilization pond water
fecal coliform damage, 1335
Wastewater
anaerobic membrane bioreactors, 2751
glyphosate degradation, 1215
human immunodeficiency virus, 3984
Wastewater treatment plants
airborne bacteria, 3774

Water
dynamics after oil spill, 243
enteropathogenic *E. coli*, 412
legionellae, 2001
toxin-bearing *E. coli*, 3095
Y. pseudotuberculosis, 2688
Water-restricted environments
bacterial lipase, 174
White rot fungi
cotton cellulose depolymerization, 1266
laccase L1, 1727
lignin solubilization, 3217
lignocellulose degradation, 1121
pentachlorophenol toxicity, 4048
phenanthrene degradation, 1832
polycyclic aromatic hydrocarbon degradation, 2219
respiration kinetics, 1740
T. versicolor laccase, 1496
TNT degradation, 3199
Whooping cough
pertussis vaccine, 208
Wine fermentations
molecular monitoring, 2938
Winemaking
erythritol biosynthesis, 2271
Wood
degradation by fungi, 1727
Xanthobacter spp.
chlorinated alkene degradation, 3038
Xanthomonas maltophilia
nitrate reductases, 3586
Xanthomonas oryzae
genetic diversity, 2188
population structure, 2188
Xanthomonas spp.
H_2S degradation, 1183
Xenorhabdus luminescens
form variants, 1975
Xenorhabdus nematophilus
lysogeny, 3032
Xenorhabdus spp.
lysogeny, 3032
Xerophilic fungi
colony spreading restriction, 2093
Xylan
fermentation to ethanol, 1128
utilization by *B. ovatus*, 2764
Xylanase
P. chrysosporium, 3466
S. thermoviolaceus, 371
Xylene
biodegradation, 794
o-Xylene
metabolites during degradation, 496
p-Xylene
Pseudomonas strain growth, 2723
Xylose
A. viscosus polysaccharides, 3501

Yam rot fungi
antifungal agent, 758
Yeast extract
ethanol production, 734
Yeast/mycelium dimorphism
C. ulmi, 2505
Yeasts
C. humicola protease, 1918
ethanol reassimilation, tolerance, 2552
P. kluyveri killer toxin, 990
S. cerevisiae ploidy, 948
wine fermentations, 2938
Yersinia enterocolitica
monitoring in feces, 1024
Yersinia pseudotuberculosis
isolation from fresh water, 2688
Yersinia ruckeri
starvation survival, 1624

Zearalenone
occurrence in beets, 3233